

**1967**  
**CENSUS OF MANUFACTURES**

**VOLUME 1**  
**PART 1**  
**PRELIMINARY REPORTS**

**SUMMARY STATISTICS, AND**  
**MAJOR GROUPS 20 - 28**

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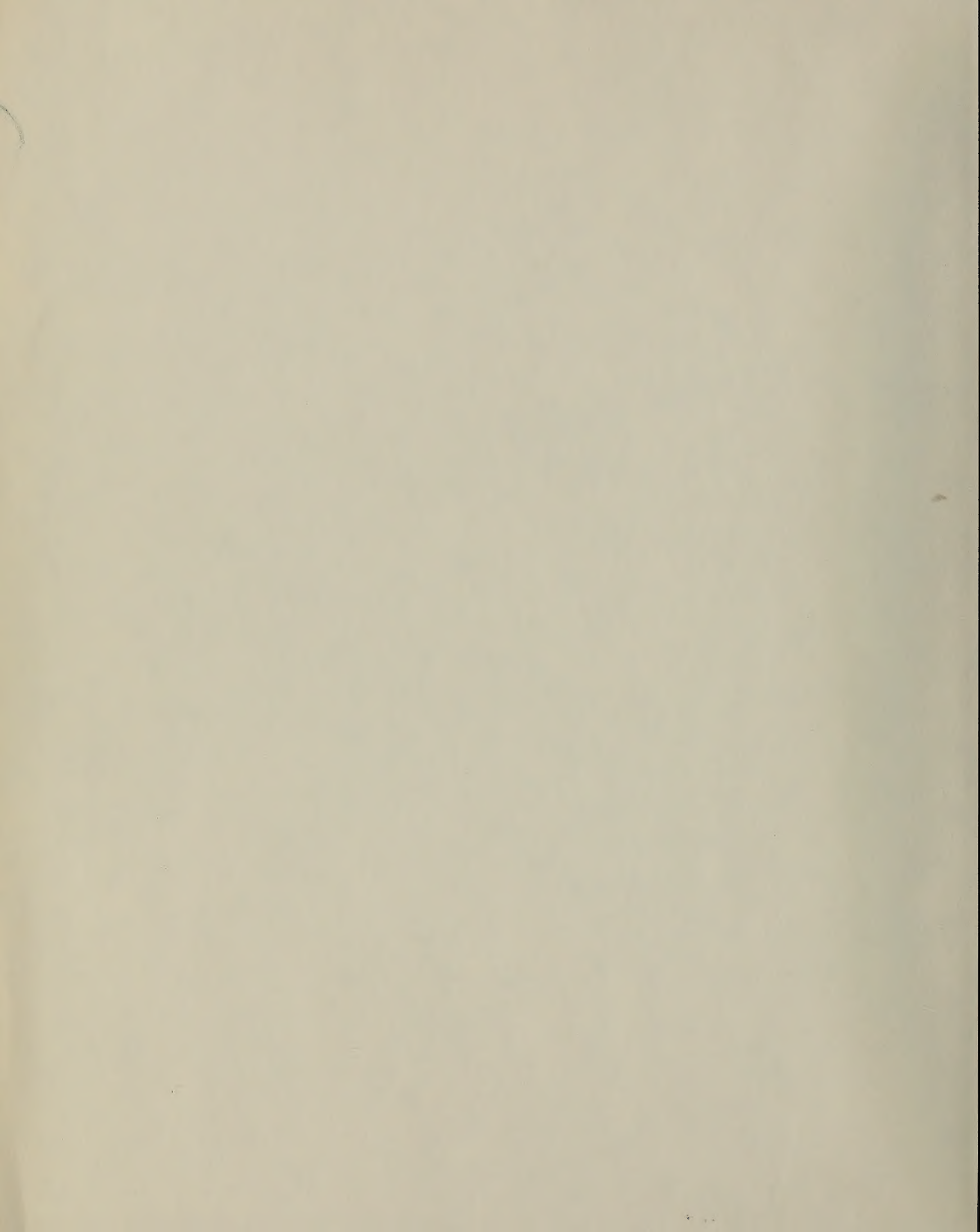


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## 1967 CENSUS OF MANUFACTURES

## INDEX OF PRELIMINARY REPORTS, BY REPORT NUMBER AND INDUSTRY CODE

Report Number	Summary Title
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MC67(P)-1	General Statistics for Industry Groups and Industries
MC67(P)-2	General Statistics for Geographic Divisions and States
MC67(P)-3	General Statistics for Industry Groups and Industries - (Recapitulation of preliminary industry reports)
MC67(P)-4	Water Use In Manufacturing: 1968
MC67(P)-5	General Statistics for Geographic Divisions and States - (Recapitulation of preliminary area reports)
MC67(P)-6	(Not Issued)
MC67(P)-7	Fuels and Electric Energy Used in Manufacturing

Report Number	SIC Code	Industry	Report Number	SIC Code	Industry
MC(P)-			MC(P)-		
20A-1	(2011 Meatpacking plants and (2013 sausages and other prepared meats		20D-1	(2041 Grain mill products and (2045 blended and prepared flour	
2	2015 Poultry dressing plants		2	2042 Prepared feeds for animals and fowls	
20B-1	2021 Creamery butter		3	2043 Cereal preparations	
2	2022 Cheese, natural and processed		4	2044 Rice milling	
3	2023 Condensed and evaporated milk		5	2046 Wet corn milling	
4	2024 Ice cream and frozen desserts		20E-1	2051 Bread, cake, and related products	
5	2026 Fluid milk		2	2052 Cookies and crackers	
20C-1	2031 Canned and cured seafoods		20F-1	2061 Raw cane sugar	
2	2032 Canned specialties		2	2062 Cane sugar refining	
3	2033 Canned fruits and vegetables		3	2063 Beet sugar	
4	2034 Dehydrated food products		4	(2071 Confectionery, chocolate, and (2072 cocoa products	
5	2035 Pickles, sauces, and salad dressings		5	2073 Chewing gum	
6	2036 Fresh or frozen packaged fish				
7	2037 Frozen fruits and vegetables				





Report Number	SIC Code	Industry	Report Number	SIC Code	Industry
MC67(P)-			MC67(P)-		
20G-1	2082	Malt liquors	22D-1	2271	Woven carpets and rugs
2	2083	Malt	2	2272	Tufted carpets and rugs
3	2084	Wines, brandy, and brandy spirits	3	2279	Carpets and rugs, n.e.c.
4	2085	Distilled liquor, except brandy	22E-1	2281	Yarn mills, except wool
5	2086	Bottled and canned soft drinks	2	2282	Throwing and winding mills
6	2087	Flavoring extracts and sirups, n.e.c.	3	2283	Wool yarn mills
			4	2284	Thread mills
20H-1	2091	Cottonseed oil mills	22F-1	2291	Felt goods, n.e.c.
2	2092	Soybean oil mills	2	2292	Lace goods
3	2093	Vegetable oil mills, n.e.c.	3	2293	Paddings and upholstery filling
4	2094	Animal and marine fats and oils	4	2294	Processed textile waste
5	2096	Shortening and cooking oils	5	2295	Coated fabrics, not rubberized
20I-1	2095	Roasted coffee	6	2296	Tire cord and fabric
2	2097	Manufactured ice	7	2297	Scouring and combing plants
3	2098	Macaroni and spaghetti	8	2298	Cordage and twine
4	2099	Food preparations, n.e.c.	9	2299	Textile goods, n.e.c.
21A-1	2111	Cigarettes	23A-1	2311	Men's and boys' suits and coats
2	2121	Cigars	2	2321	Men's and boys' shirts and night- wear
3	2131	Chewing and smoking tobacco	3	2322	Men's and boys' underwear
4	2141	Tobacco stemming and redrying	4	2323	Men's and boys' neckwear
22A-1	2211	Weaving mills, cotton	5	2327	Men's and boys' separate trousers
2	2221	Weaving mills, synthetics	6	2328	Men's and boys' work clothing
3	2231	Weaving and finishing mills, wool	7	2329	Men's and boys' clothing, n.e.c.
4	2241	Narrow fabric mills	23B-1	2331	Women's and misses' blouses and waists
22B-1	2251	Women's hosiery, except socks	2	2335	Women's and misses' dresses
2	2252	Hosiery, n.e.c.	3	2337	Women's and misses' suits and coats
3	2253	Knit outerwear mills	4	2339	Women's and misses' outerwear, n.e.c.
4	2254	Knit underwear mills	23C-1	2341	Women's and children's underwear
5	2256	Knit fabric mills	2	2342	Corsets and allied garments
6	2259	Knitting mills, n.e.c.	3	2351	Millinery
22C-1	2261	Finishing plants, cotton	4	2352	Hats and caps, except millinery
2	2262	Finishing plants, synthetics	5	2361	Children's dresses and blouses
3	2269	Finishing plants, n.e.c.	6	2363	Children's coats and suits
			7	2369	Children's outerwear, n.e.c.





Report Number	SIC Code	Industry	Report Number	SIC Code	Industry
MC67(P)-			MC67(P)-		
23D-1	2371	Fur goods	25B-1	2521	Wood office furniture
2	2381	Fabric dress and work gloves	2	2522	Metal office furniture
3	2384	Robes and dressing gowns	3	2531	Public building furniture
4	2385	Waterproof outer garments	4	2541	Wood partitions and fixtures
5	2386	Leather and sheep lined clothing	5	2542	Metal partitions and fixtures
6	2387	Apparel belts	6	2591	Venetian blinds and shades
7	2389	Apparel and accessories, nec.	7	2599	Furniture and fixtures, n.e.c.
23E-1	2391	Curtains and draperies	26A-1	2611	Pulpmills
2	2392	Housefurnishings, n.e.c.	2	2621	Papermills, except building paper
3	2393	Textile bags	3	2631	Paperboard mills
4	2394	Canvas products	4	2661	Building paper and building board mills
5	2395	Pleating and stitching			
6	2396	Automotive and apparel trimmings	26B-1	2641	Paper coating and glazing
7	2397	Schiffli machine embroideries	2	2642	Envelopes
8	2399	Fabricated textile products, n.e.c.	3	2643	Bags, except textile bags
			4	2644	Wallpaper
24A-1	2411	Logging camps and logging contractors	5	2645	Die-cut paper and board
2	2421	Sawmills and planing mills, general	6	2646	Pressed and molded pulp goods
3	2426	Hardwood dimension and flooring	7	2647	Sanitary paper products
4	2429	Special product sawmills, nec.	8	2649	Converted paper products, n.e.c.
24B-1	2431	Millwork	26C-1	2651	Folding paperboard boxes
2	2432	Veneer and plywood	2	2652	Setup paperboard boxes
3	2433	Prefabricated wood structures	3	2653	Corrugated and solid fiber boxes
			4	2654	Sanitary food containers
24C-1	2441	Nailed wooden boxes and shook	5	2655	Fiber cans, drums, and related materials
2	2442	Wirebound boxes and crates			
3	2443	Veneer and plywood containers	27A-1	2711	Newspapers
4	2445	Cooperage	2	2721	Periodicals
5	2491	Wood preserving	3	2731	Book publishing
6	2499	Wood products, n.e.c.	4	2732	Book printing
			5	2741	Miscellaneous publishing
25A-1	2511	Wood household furniture	27B-1	2751	Commercial printing, except lithographic
2	2512	Upholstered household furniture	2	2752	Commercial printing, lithographic
3	2514	Metal household furniture	3	2753	Engraving and plate printing
4	2515	Mattresses and bedsprings	4	2761	Manifold business forms
5	2519	Household furniture, n.e.c.			





Report Number	SIC Code	Industry	Report Number	SIC Code	Industry
MC67(P)-			MC67(P)-		
27C-1	2771	Greeting card publishing	29A-1	(2992	Petroleum refining and
2	2782	Blankbooks and looseleaf binders		(2911	lubricating oils and greases
3	2789	Bookbinding and related work	2	2951	Paving mixtures and blocks
4	2791	Typesetting	3	2952	Asphalt felts and coatings
5	2793	Photoengraving	4	2999	Petroleum and coal products, nec.
6	2794	Electrotyping and stereotyping	30A-1	3011	Tires and inner tubes
28A-1	2812	Alkalies and chlorine	2	3021	Rubber footwear
2	2813	Industrial gases	3	3031	Reclaimed rubber
3	2815	Cyclic intermediates and crudes	4	3069	Fabricated rubber products, nec.
4	2816	Inorganic pigments	5	3079	Miscellaneous plastics products
5	2818	Industrial organic chemicals n.e.c.	31A-1	3111	Leather tanning and finishing
6	2819	Industrial inorganic chemicals, n.e.c.	2	3121	Industrial leather belting and packing
28B-1	2821	Plastics materials and resins	3	3131	Footwear cut stock
2	2822	Synthetic rubber	4	3141	Shoes, except rubber
3	2823	Cellulosic manmade fibers	5	3142	House slippers
4	2824	Organic fibers, noncellulosic	31B-1	3151	Leather gloves and mittens
28C-1	2831	Biological products	2	3161	Luggage
2	2833	Medicinals and botanicals	3	3171	Women's handbags and purses
3	2834	Pharmaceutical preparations	4	3172	Personal leather goods
28D-1	2841	Soap and other detergents	5	3199	Leather goods, n.e.c.
2	2842	Polishes and sanitation goods	32A-1	3211	Flat glass
3	2843	Surface active agents	2	3221	Glass containers
4	2844	Toilet preparations	3	3229	Pressed and blown glass, n.e.c.
28E-1	2851	Paints and allied products	4	3231	Products of purchased glass
2	2861	Gum and wood chemicals	32B-1	3241	Cement, hydraulic
28F-1	2871	Fertilizers	2	3251	Brick and structural clay tile
2	2872	Fertilizers, mixing only	3	3253	Ceramic wall and floor tile
3	2879	Agricultural chemicals, nec.	4	3255	Clay refractories
28G-1	2891	Adhesives and gelatin	5	3259	Structural clay products, nec.
2	2892	Explosives	32C-1	3261	Vitreous plumbing fixtures
3	2893	Printing ink	2	3262	Vitreous china food utensils
4	2895	Carbon black	3	3263	Fine earthenware food utensils
5	2899	Chemical preparations, nec.	4	3264	Porcelain electrical supplies
			5	3269	Pottery products, n.e.c.
			32D-1	3271	Concrete block and brick
			2	3272	Concrete products, nec.
			3	3273	Ready-mixed concrete
			4	3274	Lime





Report Number	SIC Code	Industry	Report Number	SIC Code	Industry
MC67(P)-			MC67(P)-		
32D-5	3275	Gypsum products	33E-1	3391	Iron and steel forgings
6	3281	Cut stone and stone products	2	3392	Nonferrous forgings
			3	3399	Primary metal products, nec.
32E-1	3291	Abrasive products	34A-1	3411	Metal cans
2	3292	Asbestos products	2	3421	Cutlery
3	3293	Gaskets and insulations	3	3423	Hand and edge tools, n.e.c.
4	3295	Minerals, ground or treated	4	3425	Handsaws and saw blades
5	3296	Mineral wool	5	3429	Hardware, n.e.c.
6	3297	Nonclay refractories			
7	3299	Nonmetallic mineral products, n.e.c.	34B-1	3431	Metal sanitary ware
			2	3432	Plumbing fittings and brass goods
33A-1	3312	Blast furnaces and steel mills	3	3433	Heating equipment, except electric
2	3313	Electrometallurgical products			
3	3315	Steel wire and related products	34C-1	3441	Fabricated structural steel
4	3316	Cold finishing of steel shapes	2	3442	Metal doors, sash, and trim
5	3317	Steel pipe and tubes	3	3443	Fabricated platework (boiler shops)
			4	3444	Sheet metalwork
33B-1	3321	Gray iron foundries	5	3446	Architectural metalwork
2	3322	Malleable iron foundries	6	3449	Miscellaneous metalwork
3	3323	Steel foundries			
			34D-1	3451	Screw machine products
33C-1	3331	Primary copper	2	3452	Bolts, nuts, rivets, and washers
2	3332	Primary lead	3	3461	Metal stampings
3	3333	Primary zinc	4	3471	Plating and polishing
4	3334	Primary aluminum	5	3479	Metal coating and allied services
5	3339	Primary nonferrous metals, n.e.c.			
6	3341	Secondary nonferrous metals	34E-1	3481	Miscellaneous fabricated wire products
			2	3491	Metal barrels, drums, and pails
33D-1	3351	Copper rolling and drawing	3	3492	Safes and vaults
2	3352	Aluminum rolling and drawing	4	3493	Steel springs
3	3356	Nonferrous rolling and drawing, n.e.c.	5	3494	Valves and pipe fittings
4	3357	Nonferrous wiredrawing and insulating	6	3496	Collapsible tubes
5	3361	Aluminum castings	7	3497	Metal foil and leaf
6	3362	Brass, bronze, and copper castings	8	3498	Fabricated pipe and fittings
			9	3499	Fabricated metal products, nec.
7	3369	Nonferrous castings, n.e.c.	35A-1	3511	Steam Engines and turbines
			2	3519	Internal combustion engines, nec.





Report Number	SIC Code	Industry	Report Number	SIC Code	Industry
MC67(P)-			MC67(P)-		
35A-3	3522	Farm machinery	35G-1	3581	Automatic merchandising machines
			2	3582	Commercial laundry equipment
35B-1	3531	Construction machinery	3	3585	Refrigeration machinery
2	3532	Mining machinery	4	3586	Measuring and dispensing pumps
3	3533	Oilfield machinery	5	3589	Service industry machines, n.e.c.
4	3534	Elevators and moving stairways	6	3599	Miscellaneous machinery, except electrical
5	3535	Conveyors and conveying equipment			
6	3536	Hoists, cranes, and monorails	36A-1	3611	Electric measuring instruments
7	3537	Industrial trucks and tractors	2	3612	Transformers
			3	3613	Switchgear and switchboard apparatus
35G-1	3541	Machine tools, metal-cutting types	4	3621	Motors and generators
2	3542	Machine tools, metal-forming types	5	3622	Industrial controls
3	3544	Special dies, tools, jigs, and fixtures	6	3623	Welding apparatus
4	3545	Machine tool accessories	7	3624	Carbon and graphite products
5	3548	Metalworking machinery, n.e.c.	8	3629	Electrical industrial apparatus, n.e.c.
			36B-1	3631	Household cooking equipment
35D-1	3551	Food products machinery	2	3632	Household refrigerators and freezers
2	3552	Textile machinery			
3	3553	Woodworking machinery	3	3633	Household laundry equipment
4	3554	Paper industries machinery	4	3634	Electric housewares and fans
5	3555	Printing trades machinery	5	3635	Household vacuum cleaners
6	3559	Special industry machinery, n.e.c.	6	3636	Sewing machines
			7	3639	Household appliances, n.e.c.
35E-1	3561	Pumps and compressors	36C-1	3641	Electric lamps
2	3562	Ball and roller bearings	2	3642	Lighting fixtures
3	3564	Blowers and fans	3	3643	Current carrying wiring devices
4	3565	Industrial patterns	4	3644	Noncurrent carrying wiring devices
5	3566	Power transmission equipment			
6	3567	Industrial furnaces and ovens			
7	3569	General industry machinery, n. e. c.	36D-1	3651	Radio and TV receiving sets
			2	3652	Phonograph records
			3	3661	Telephone and telegraph apparatus
35F-1	3572	Typewriters	4	3662	Radio and TV communication equipment
2	(3573	Electronic computing equipment			
	(3574	and Calculating and accounting machines	5	3671	Electron tubes, receiving type
3		Number not used	6	3672	Cathode ray picture tubes
4	3576	Scales and balances	7	3673	Electron tubes, transmitting
5	3579	Office machines, n.e.c.			





Report Number	SIC Code	Industry	Report Number	SIC Code	Industry
MC67(P)-			MC67(P)-		
36D-8	3674	Semiconductors	38B-1	3861	Photographic equipment and supplies
9	3679	Electronic components	2	3871	Watches and clocks
36E-1	3691	Storage batteries	3	3872	Watchcases
2	3692	Primary batteries, dry and wet	39A-1	3911	Jewelry, precious metal
3	3693	X-ray apparatus and tubes	2	3912	Jewelers' findings and materials
4	3694	Engine electrical equipment	3	3913	Lapidary work
5	3699	Electrical equipment, n.e.c.	4	3914	Silverware and plated ware
37A-1		Number not used	39B-1	3931	Musical instruments and parts
2		Number not used	2	3941	Games and toys
3	3713	Truck and bus bodies	3	3942	Dolls
4	(3711 and 3712	Motor vehicles	4	3943	Children's vehicles, except bicycles
	(3714	Motor vehicle parts and accessories	5	3949	Sporting and athletic goods, n.e.c.
5	3715	Truck trailers	39C-1	3951	Pens and mechanical pencils
37B-1	3721	Aircraft	2	3952	Lead pencils and art goods
2	3722	Aircraft engines and engine parts	3	3953	Marking devices
3	3729	Aircraft equipment, n.e.c.	4	3955	Carbon paper and inked ribbons
37C-1	3731	Shipbuilding and repairing	5	3961	Costume jewelry
2	3732	Boat building and repairing	6	3962	Artificial flowers
3	3741	Locomotives and parts	7	3963	Buttons
4	3742	Railroad and street cars	8	3964	Needles, pins, and fasteners
5	3751	Motorcycles, bicycles, and parts	39D-1	3991	Brooms and brushes
6	3791	Trailer coaches	2	3993	Signs and advertising displays
7	3799	Transportation equipment, n.e.c.	3	3994	Mortician's goods
38A-1	3811	Engineering and scientific instruments	4	3996	Hard surface floor coverings
2	3821	Mechanical measuring devices	5	3999	Manufactures, n.e.c.
3	3822	Automatic temperature controls	19A-	1925	Complete guided missiles
4	3831	Optical instruments and lenses	2	1929	Ammunition, except for small arms, n.e.c.
5	3841	Surgical and medical instruments	3	1931	Tanks and Tank Components
6	3842	Surgical appliances and supplies	4	1941	Sighting and fire control
7	3843	Dental Equipment and Supplies	5	1951	Small Arms
8	3851	Ophthalmic goods	6	1961	Small arms ammunition
			7	(1911	Guns, howitzers, mortars and related equipment and Ordnance and accessories, n.e.c.
				(1999	





# 1967 CENSUS OF MANUFACTURES

Series MC67(P)-1



SUMMARY SERIES

**preliminary  
report**

## General Statistics for Industry Groups and Industries

This report presents preliminary results from the 1967 Census of Manufactures and is the first of a series of reports to be issued as part of that program. The data are based on the annual survey of manufactures sample which was conducted as an integral part of the census of manufactures. During all phases of the processing of the census of manufactures, the establishments comprising the annual survey of manufactures sample were separately identified and processed.

The subsequent preliminary reports of the 1967 Census of Manufactures will be based on data from the census of manufactures universe and will consist of a series of individual industry and area reports. In the industry reports, general statistics based on both the census and annual survey of manufactures will be shown for 1967.

The table provides data on employment, man-hours, payrolls, value added by manufacture, capital expenditures, cost of materials, inventories, and value of products shipped for manufacturing industries. Establishments are classified in manufacturing industries in accordance with industry definitions described in the 1967 edition of the Standard Industrial Classification (SIC) Manual. Data are included for all industries and industry groups with comparative data from the 1966 Annual Survey of Manufactures and the 1963 Census of Manufactures.

Since the figures shown in this report have been subjected only to a preliminary review, they must be regarded as approximations of

the final census figures. Individual estimates of low reliability, usually those with a standard error of estimate of 15 percent or more, are indicated with an asterisk and should be used with caution. No adjustments in the dollar figures have been made for changes in price or wage levels from the comparison years of 1963 and 1966 to 1967.

The estimates for 1967 are based on reports from about 65,000 manufacturing establishments selected in a probability sample out of a total of about 310,000 manufacturing establishments. Included in the sample are all large manufacturing plants, which account for more than two-thirds of total employment of all manufacturing establishments in the United States. The sample also includes varying proportions of the more numerous medium- and small-sized establishments. The estimates obtained from this sample vary from the totals that would have been obtained from a complete canvass of all manufacturing establishments. The relative magnitude of the sampling variation of 1966/1965 relatives is indicated in the table column captioned "Standard error of change." It is believed that the standard errors for the 1967/1966 relatives are approximately the same as those shown for 1966. For a complete description of the annual survey of manufactures and the sampling procedure used, see the introduction to the *Annual Survey of Manufactures 1964-1965*.

The census of manufactures is the 28th such census for the United States since the first census was conducted in 1809. Since World War II, it has been scheduled as a 5-year

Issued: April 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 25 cents



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

William H. Chartener, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** A. Ross Eckler, Director



program. However for a variety of reasons, the actual censuses were conducted for 1947, 1954, 1958, and 1963. In recent years the census of manufactures has been conducted as part of the economic census program which also

includes censuses of mineral industries, business, and transportation.

An explanation of the data items included in this report appears in the appendix.

#### 1967 CENSUS OF MANUFACTURES PRELIMINARY REPORTS

**Industry Series:** (About 425 reports, Series MC67(P)-19A to 39E). A separate report for each of about 425 manufacturing industries provides industry totals for general statistics for the United States and for regions and States. Comparable historical data are also included. Tables present U.S. totals for quantity and value of shipments of the products classified in the industry and quantity and cost of materials consumed by establishments in the industry.

**Area Series:** (51 reports, Series MC67(P)-S1 to S51). A separate report for each State and the District of Columbia presents general statistics for the State and for the larger standard metropolitan statistical areas within the State by 2-digit and selected 3-digit industries; "all manufacturing" totals (no industry detail) are shown for most individual counties.

# 1967 CENSUS OF MANUFACTURES

Series MC67(P)-1



SUMMARY SERIES

**preliminary  
report**

## General Statistics for Industry Groups and Industries

### CHANGE SHEET

The following revisions in 1967 data should be made for the specified items, as published in 1967 Census of Manufactures Summary Series MC67(P)-1, General Statistics for Industry Groups and Industries, issued in April 1969.

Code	Data item, industry group, and industry	As published	As revised
	All employees, number (1,000):		
--	All industries, total.....	19,388	19,398
	Administrative and auxiliary.....	818	828
	All employees, payroll (million dollars):		
	All industries, total.....	131,703	131,876
2341	Women's and children's underwear.....	29	285
2342	Corsets and allied garments.....	148	118
--	Administrative and auxiliary.....	8,673	8,620
	Value of shipments (million dollars):		
	All industries, total.....	554,564	555,863
2052	Cookies and crackers.....	137	1,367
3171	Women's handbags and purses.....	30	299
3275	Gypsum products.....	583	383
	Capital expenditures, new (million dollars):		
	All industries, total.....	20,268	20,231
205	Bakery products.....	192	155

The above corrections affect not only the codes listed but also the broader 2- and 3-digit aggregates in which they are included. For example, the value of shipments correction for industry 2052 also affect the 3-digit total for 205 and the 2-digit total for 20.

June 1969



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director





## 1967 CENSUS OF MANUFACTURES

3

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>2</sup>		1963		Standard error of change (percent) for columns <sup>1</sup> -	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	K	L	
	ALL INDUSTRIES, TOTAL.....	19,388	131,703	13,975	27,925	81,025	259,301	298,371	554,564	20,268	82,767	19,028	250,846	16,967	192,102	1	
20	Food and kindred products.....	1,654	10,012	1,118	2,255	5,988	26,352	56,602	81,705	1,601	7,527	1,641	24,891	1,641	21,826	1	1
21	Tobacco manufactures.....	75	377	65	125	306	2,011	2,898	4,957	53	2,389	72	1,871	78	1,680	1	1
22	Textile mill products.....	931	4,394	831	1,693	3,548	8,003	11,765	19,767	710	3,088	929	8,030	863	6,124	1	1
23	Apparel and other textile products.....	1,363	5,249	1,202	2,197	4,250	9,693	11,057	20,750	198	2,598	1,359	9,222	1,279	7,861	1	1
24	Lumber and wood products.....	563	2,760	500	985	2,255	4,828	6,026	10,875	394	1,368	571	4,792	562	4,019	2	1
25	Furniture and fixtures.....	429	2,222	357	717	1,622	4,041	3,577	7,634	197	1,091	430	3,990	377	3,068	1	1
26	Paper and allied products.....	643	4,440	506	1,074	3,200	9,676	11,298	20,927	1,426	2,231	633	9,419	587	7,396	1	1
27	Printing and publishing.....	1,064	7,295	648	1,256	4,099	14,155	7,568	21,677	821	1,927	1,017	13,265	914	10,476	3	1
28	Chemicals and allied products..	854	6,518	544	1,098	3,579	23,440	18,951	42,188	2,833	5,425	824	22,656	737	17,585	1	1
29	Petroleum and coal products...	140	1,196	100	200	778	5,356	16,696	21,967	1,004	2,010	141	4,736	153	3,714	2	1
30	Rubber and plastics products, n.e.c.....	504	3,193	397	788	2,229	6,474	5,868	12,362	605	1,608	492	6,278	414	4,654	1	1
31	Leather and leather products..	332	1,468	294	553	1,150	2,577	2,543	4,877	61	639	342	2,480	327	2,080	1	1
32	Stone, clay, and glass products	605	3,877	476	967	2,805	8,408	6,105	14,769	722	1,862	618	8,493	573	7,045	2	1
33	Primary metal industries.....	1,283	9,837	1,041	2,080	7,450	20,148	27,329	47,023	2,968	7,919	1,297	20,901	1,125	15,263	1	1
34	Fabricated metal products.....	1,307	9,009	1,023	2,093	6,253	17,054	16,119	33,191	1,009	5,474	1,252	15,792	1,082	11,792	1	1
35	Machinery, except electrical..	1,872	14,300	1,345	2,813	9,236	27,697	21,715	49,077	1,739	10,819	1,801	27,037	1,462	17,307	2	1
36	Electrical equipment and supplies.....	1,884	12,936	1,338	2,630	7,571	24,855	19,369	43,606	1,462	8,545	1,814	23,544	1,511	17,011	1	1
37	Transportation equipment.....	1,890	15,602	1,380	2,805	10,187	28,901	41,731	70,539	1,717	11,713	1,891	29,249	1,601	22,764	1	1
38	Instruments and related products.....	377	2,684	255	501	1,503	6,063	3,434	9,503	359	1,887	362	5,832	305	3,993	1	1
39	Miscellaneous manufacturing industries.....	423	2,273	342	663	1,540	4,525	3,953	8,413	188	1,476	418	4,395	404	3,562	1	2
19	Ordinance and accessories <sup>2</sup> ....	377	3,388	213	432	1,476	5,044	3,767	8,757	201	1,171	300	3,973	246	2,882	1	1
--	Administrative and auxiliary <sup>3</sup> ..	818	8,673	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	824	(X)	726	(X)	(X)	(X)
20	FOOD AND KINDRED PRODUCTS.	1,654	10,012	1,118	2,255	5,988	26,352	56,602	81,705	1,601	7,527	1,641	24,891	1,641	21,826	1	1
201	Meat products.....	305	1,910	244	498	1,398	3,414	17,370	20,776	195	705	296	3,205	300	2,882	1	1
2011	Meatpacking plants.....	174	1,265	133	281	927	2,191	13,177	15,355	129	469	173	2,021	181	1,908	1	1
2013	Sausages and other prepared meats.....	50	350	37	76	228	683	1,945	2,633	28	116	48	625	49	563	1	1
2015	Poultry dressing plants.....	81	295	74	141	243	540	2,248	2,788	38	120	75	559	70	411	1	1
202	Dairy products.....	238	1,448	109	227	606	3,517	9,334	12,860	157	487	237	3,345	257	3,185	11	1
2021	Creamery butter.....	9	46	7	15	32	136	900	1,042	9	31	9	126	12	133	3	2
2022	Cheese, natural and processed.	20	103	17	35	80	236	1,477	1,715	16	151	19	246	18	180	1	1
2023	Condensed and evaporated milk.	13	79	10	20	57	326	832	1,167	18	64	12	310	12	236	2	1
2024	Ice cream and frozen desserts.	30	175	15	30	83	461	733	1,194	24	74	28	431	30	433	2	1
2026	Fluid milk.....	166	1,045	60	127	354	2,358	5,392	7,742	90	(5)	169	2,232	185	2,203	1	1
203	Canned, cured, and frozen foods.....	263	1,241	230	432	956	3,627	5,642	9,258	235	2,099	259	3,401	244	2,778	1	1
2031	Canned and cured seafoods.....	16	70	14	25	55	4193	331	4,523	8	113	17	4,204	17	4,175	2	2
2032	Canned specialties.....	29	167	24	48	122	4,650	844	41,491	28	(5)	29	4,645	25	4,541	1	1
2033	Canned fruits and vegetables..	102	472	90	165	373	41,391	2,028	43,414	(5)	(5)	101	41,286	102	41,029	2	1
2034	Dehydrated food products.....	10	54	9	18	41	1,361	251	4,413	14	104	10	4,162	9	4,116	2	1
2035	Pickles, sauces, and salad dressings.....	22	107	18	34	73	4,301	560	4,859	13	144	21	4,273	19	4,249	2	1
2036	Fresh or frozen packaged fish.	20	72	18	30	55	4,173	339	4,511	6	70	19	4,152	20	4,118	4	2
2037	Frozen fruits and vegetables..	64	299	57	112	237	4,758	1,289	42,047	69	349	62	4,679	52	4,550	2	1
204	Grain mill products.....	109	734	76	164	460	2,704	6,881	9,604	170	712	108	2,547	112	2,272	3	1
2041	Flour and other grain mill products.....	20	139	15	33	94	460	1,920	2,383	22	183	20	434	22	373	2	3
2042	Prepared feeds for animals and fowls.....	52	316	33	73	176	1,089	3,524	4,640	67	242	51	1,032	55	984	2	1
2043	Cereal preparations.....	12	92	10	20	71	467	319	783	18	54	12	442	11	365	1	1
2044	Rice milling.....	4	24	3	7	15	104	421	521	8	115	4	86	4	81	1	1
2045	Blended and prepared flour....	7	50	5	10	32	235	297	533	10	38	7	206	7	178	1	2
2046	Wet corn milling.....	14	113	10	21	72	349	400	744	45	80	14	347	13	291	1	1
205	Bakery products.....	269	1,672	160	329	887	3,475	3,017	5,262	192	199	275	3,371	280	3,031	2	1
2051	Bread, cake, and related products.....	227	1,429	127	262	713	2,745	2,379	5,125	(5)	126	232	2,658	237	2,404	2	1
2052	Cookies and crackers.....	42	243	33	67	174	730	638	137	23	73	43	713	43	627	1	1
206	Sugar.....	30	207	24	52	158	646	1,590	2,239	61	377	31	604	31	591	1	1
2061	Raw cane sugar.....	8	48	6	14	35	135	213	349	19	25	11	121	8	136	1	1
2062	Cane sugar refining.....	11	90	8	18	67	299	1,040	1,327	22	(5)	11	263	12	254	1	1
2063	Beet sugar.....	11	69	10	20	56	212	337	563	20	191	12	220	11	201	1	1

See footnotes at end of table.



## 1967 CENSUS OF MANUFACTURES

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>2</sup>		1963		Standard error of change (percent) for columns 1--	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(mil-lions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	K	L	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)				
20	FOOD AND KINDRED PRODUCTS--Continued																
207	Confectionery and related products.....	82	425	68	132	304	1,184	1,459	2,630	60	373	82	1,113	79	956	1	1
2071	Confectionery products.....	67	329	56	108	237	799	1,009	1,799	38	222	67	756	64	635	1	1
2072	Chocolate and cocoa products..	8	54	7	14	40	196	335	526	9	92	8	180	9	185	1	1
2073	Chewing gum.....	7	42	5	10	27	189	115	305	13	59	7	177	6	136	1	1
208	Beverages.....	221	1,533	115	228	736	4,848	4,391	9,195	340	1,513	218	4,402	205	3,725	1	1
2082	Malt liquors.....	60	525	41	78	347	1,539	1,409	2,949	117	167	61	1,412	63	1,286	1	1
2083	Malt.....	2	20	2	3	13	56	172	228	8	87	2	48	2	44	1	1
2084	Wines, brandy, and brandy spirits.....	7	49	4	9	26	209	238	433	10	174	7	193	6	137	1	1
2085	Distilled liquor, except brandy.....	19	141	16	31	101	4741	643	41,371	27	791	19	4723	18	4624	2	1
2086	Bottled and canned soft drinks	121	717	45	95	213	1,630	1,449	3,066	158	169	118	1,471	107	1,234	1	1
2087	Flavoring extracts and sirups, n.e.c.....	12	81	7	12	36	673	480	1,148	20	125	11	555	9	400	1	2
209	Miscellaneous foods and kindred products.....	137	842	92	193	483	2,937	6,918	9,881	191	1,062	135	2,903	133	2,406	2	1
2091	Cottonseed oil mills.....	6	31	5	11	19	61	376	449	*5	104	7	104	8	101	2	2
2092	Soybean oil mills.....	9	59	6	13	39	233	1,916	2,151	18	349	7	209	6	152	1	1
2093	Vegetable oil mills, n.e.c....	2	12	1	3	8	38	223	258	2	53	2	38	2	43	1	1
2094	Animal and marine fats and oils.....	*13	*92	*8	*20	*48	*271	*385	*660	*17	*33	*13	*307	14	193	16	6
2095	Roasted coffee.....	16	120	9	19	61	692	1,374	2,064	26	153	16	668	17	616	1	1
2096	Shortening and cooking oils...	14	105	11	21	68	362	1,255	1,629	26	153	14	350	14	265	1	1
2097	Manufactured ice.....	10	46	6	14	28	96	25	118	*3	3	10	98	11	90	3	3
2098	Macaroni and spaghetti.....	8	43	5	11	25	123	146	267	4	21	7	106	7	96	1	1
2099	Food preparations, n.e.c.....	59	334	41	81	187	1,061	1,218	2,285	90	193	59	1,023	54	850	1	1
21	TOBACCO MANUFACTURES.....	75	377	65	125	306	2,011	2,898	4,957	53	2,389	72	1,871	78	1,680	1	1
2111	Cigarettes.....	37	219	33	63	188	41,615	1,385	43,036	32	1,423	36	41,483	36	41,310	1	1
2121	Cigars.....	19	73	17	32	61	4199	177	4374	*5	67	19	4204	21	4193	1	1
2131	Chewing and smoking tobacco...	4	22	3	6	14	489	66	4156	2	39	4	484	4	474	1	1
2141	Tobacco stemming and redrying.	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	13	4100	17	4103	1	1
22	TEXTILE MILL PRODUCTS.....	931	4,394	831	1,693	3,548	8,003	11,765	19,767	710	3,088	929	8,030	863	6,124	1	1
2211	Weaving mills, cotton.....	204	943	190	401	836	1,603	1,779	3,336	168	646	209	1,730	209	1,257	1	1
2221	Weaving mills, synthetics....	108	529	97	208	445	888	1,394	2,303	92	386	103	886	88	662	1	1
2231	Weaving and finishing mills, wool.....	42	221	37	76	170	418	663	1,085	30	177	44	446	47	387	2	1
2241	Narrow fabric mills.....	26	127	23	46	100	222	236	455	15	68	25	202	23	172	2	1
225	Knitting mills.....	241	1,016	214	407	795	1,887	2,599	4,472	133	683	242	1,802	221	1,396	1	1
2251	Women's hosiery, except socks.	55	214	50	93	179	397	418	810	*31	137	53	360	52	296	1	1
2252	Hosiery, n.e.c.....	40	145	37	67	118	249	333	582	12	93	44	247	43	192	2	2
2253	Knit outerwear mills.....	74	335	64	124	258	571	702	1,285	36	171	77	572	69	464	1	2
2254	Knit underwear mills.....	32	116	28	51	89	210	236	437	8	104	32	200	28	171	1	1
2256	Knit fabric mills.....	36	190	31	65	139	431	881	1,300	45	171	32	396	25	253	3	2
2259	Knitting mills, n.e.c.....	*4	*16	*4	*7	*12	*29	*29	*58	*1	*7	*4	*27	4	20	9	10
226	Textile finishing, except wool.....	72	400	60	129	303	688	1,017	1,705	47	178	72	680	71	582	1	1
2261	Finishing plants, cotton.....	35	187	29	62	143	312	550	864	26	113	35	329	42	332	1	1
2262	Finishing plants, synthetics..	25	154	21	46	116	263	301	564	13	43	25	250	20	177	2	1
2269	Finishing plants, n.e.c.....	12	59	10	21	44	113	166	277	8	22	12	101	9	73	2	1
227	Floor covering mills.....	42	222	36	76	162	570	1,131	1,703	40	299	41	545	35	395	17	1
2271	Woven carpets and rugs.....	9	49	8	16	37	105	171	278	6	65	10	116	13	120	1	1
2272	Tufted carpets and rugs.....	30	156	25	54	112	414	907	1,323	32	215	28	398	20	259	4	1
2279	Carpets and rugs, n.e.c.....	3	17	3	6	13	51	53	102	2	19	3	31	2	16	5	8
228	Yarn and thread mills.....	119	508	110	223	432	953	1,650	2,616	135	330	116	960	103	653	1	1
2281	Yarn mills, except wool.....	75	316	71	145	280	571	897	1,469	98	184	73	592	62	363	1	1
2282	Throwing and winding mills....	18	78	16	33	61	172	356	537	18	48	16	140	14	94	2	1
2283	Wood yarn mills.....	14	60	12	24	49	106	231	343	7	50	15	122	17	120	1	2
2284	Thread mills.....	12	54	11	21	42	104	166	267	12	48	12	106	10	76	3	2

See footnotes at end of table.

## 1967 CENSUS OF MANUFACTURES

5

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>2</sup>		1963		Standard error of change (percent) for columns <sup>1--</sup>	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	(K)	(L)
22	TEXTILE MILL PRODUCTS--Continued																
229	Miscellaneous textile goods.	77	428	64	127	305	774	1,296	2,092	50	321	77	779	66	620	2	1
2291	Felt goods, n.e.c.....	5	27	4	8	19	55	72	128	3	17	5	62	5	59	2	1
2292	Lace goods.....	5	22	4	8	19	24	24	48	*1	11	5	27	5	31	10	11
2293	Paddings and upholstery filling.....	8	45	7	12	31	96	112	209	*4	20	8	96	7	66	8	3
2294	Processed textile waste.....	4	19	3	7	14	30	74	108	*1	22	5	48	4	31	7	3
2295	Coated fabrics, not rubberized	19	131	14	29	84	243	365	607	15	110	18	234	14	179	3	3
2296	Tire cord and fabric.....	10	49	9	18	42	90	354	448	10	48	11	107	9	72	1	1
2297	Scouring and combing plants...	5	27	5	10	22	35	56	96	3	15	6	45	6	45	1	1
2298	Cordage and twine.....	10	45	9	17	34	74	88	172	5	42	9	59	9	58	5	3
2299	Textile goods, n.e.c.....	11	63	9	18	40	127	151	276	8	36	10	101	7	79	4	4
23	APPAREL AND OTHER TEXTILE PRODUCTS.....	1,363	5,249	1,202	2,197	4,250	9,693	11,057	20,750	198	2,598	1,359	9,222	1,279	7,861	1	1
2311	Men's and boys' suits and coats.....	139	657	123	229	519	1,102	919	2,021	16	342	134	1,025	123	832	1	1
232	Men's and boys' furnishings.	338	1,168	305	562	962	2,005	2,603	4,612	52	732	340	1,921	305	1,617	1	1
2321	Men's and boys' shirts and nightwear.....	110	376	100	181	318	646	749	1,369	14	226	113	613	113	599	1	1
2322	Men's and boys' underwear.....	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	14	80	12	63	3	3
2323	Men's and boys' neckwear.....	7	35	6	12	22	65	97	162	*(6)	14	8	65	8	58	9	6
2327	Men's and boys' separate trousers.....	91	317	82	153	262	498	629	1,168	17	174	91	482	74	383	3	2
2328	Men's and boys' work clothing.	74	234	68	123	197	439	669	1,093	9	197	73	404	62	331	2	1
2329	Men's and boys' clothing, n.e.c.....	43	161	37	70	122	278	366	650	*6	98	41	277	36	183	7	2
233	Women's and misses' outerwear.....	425	1,774	373	668	1,340	3,137	3,180	6,291	45	553	420	2,926	406	2,460	1	1
2331	Women's and misses' blouses and waists.....	65	236	58	104	186	467	406	829	7	86	65	408	58	301	3	3
2335	Women's and misses' dresses...	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	192	1,254	200	1,181	5	1
2337	Women's and misses' suits and coats.....	90	442	77	143	324	830	937	1,785	*12	148	95	814	88	638	1	2
2339	Women's and misses' outerwear, n.e.c.....	65	255	56	105	191	427	516	949	*9	128	68	450	60	340	12	2
234	Women's and children's undergarments.....	111	177	100	178	323	811	922	1,745	19	279	111	785	114	741	1	2
2341	Women's and children's underwear.....	80	29	71	126	223	485	590	1,080	12	164	79	457	77	431	1	1
2342	Corsets and allied garments...	31	148	29	52	100	326	332	665	7	115	32	328	37	310	3	3
235	Hats, caps, and millinery...	20	82	18	31	59	127	131	262	2	30	23	134	31	185	5	6
2351	Millinery.....	8	30	7	12	23	53	50	103	*(6)	5	10	62	14	93	8	8
2352	Hats and caps, except millinery	12	52	11	19	36	74	81	159	2	25	13	72	17	92	7	8
236	Children's outerwear.....	81	296	72	131	232	527	581	1,113	8	120	85	520	82	467	2	1
2361	Children's dresses and blouses	34	129	30	55	98	237	250	495	4	45	35	238	36	206	3	1
2363	Children's coats and suits.....	11	43	10	17	32	71	91	163	*(6)	15	12	78	12	73	3	6
2369	Children's outerwear, n.e.c....	36	124	32	59	102	219	240	455	4	60	38	204	34	188	2	2
2371	Fur goods.....	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	10	128	9	111	5	6
238	Miscellaneous apparel and accessories.....	70	279	60	112	208	488	586	1,078	*11	128	68	471	61	376	2	1
2381	Fabric dress and work gloves..	17	59	15	29	48	101	113	214	*2	30	16	94	13	68	2	5
2384	Robes and dressing gowns.....	12	47	10	19	36	83	127	209	*1	12	12	79	12	69	1	2
2385	Waterproof outer garments.....	19	78	16	29	56	147	183	333	4	44	18	140	16	111	7	1
2386	Leather and sheep lined clothing.....	4	21	4	7	18	36	46	83	*1	7	4	38	3	23	3	3
2387	Apparel belts.....	10	41	8	15	26	67	57	125	*1	14	9	65	10	62	2	5
2389	Apparel and accessories, n.e.c.	8	33	7	13	24	54	60	114	2	21	9	55	7	43	4	5
239	Miscellaneous fabricated textile products.....	169	746	142	270	555	1,357	1,892	3,246	44	372	168	1,312	148	1,072	2	1
2391	Curtains and draperies.....	26	102	23	41	79	168	242	413	4	33	27	189	22	132	5	3
2392	Housefurnishings, n.e.c.....	42	181	35	66	129	324	543	873	9	124	45	337	40	286	3	2
2393	Textile bags.....	7	29	6	12	25	70	154	222	*6	29	7	60	7	57	5	5
2394	Canvas products.....	18	75	15	28	52	137	150	286	6	46	14	102	11	74	5	4
2395	Pleating and stitching.....	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	13	85	16	95	13	12
2396	Automotive and apparel trimmings.....	28	164	22	45	122	293	446	736	12	72	28	280	25	228	2	1
2397	Schiffli machine embroideries.	6	29	5	10	23	51	41	92	*1	4	6	51	6	55	7	4
2399	Fabricated textile products, n.e.c.....	28	112	24	46	83	211	268	480	5	59	28	208	21	145	7	5

See footnotes at end of table.



## 1967 CENSUS OF MANUFACTURES

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>r</sup>		1963		Standard error of change (percent) for columns <sup>1</sup>	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(mil-lions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	K	L
24	LUMBER AND WOOD PRODUCTS..	563	2,760	500	985	2,255	4,828	6,026	10,875	394	1,368	571	4,792	562	4,019	2	
2411	Logging camps and logging contractors.....	72	329	68	126	301	735	704	1,411	90	79	72	656	73	520	3	1
242	Sawmills and planing mills..	227	1,037	205	398	876	1,744	2,176	3,938	151	589	232	1,789	242	1,572	6	1
2421	Sawmills and planing mills, general.....	192	898	174	336	763	1,549	1,917	3,474	141	505	195	1,556	207	1,376	6	1
2426	Hardwood dimension and flooring.....	28	113	25	50	91	159	195	359	9	67	30	193	28	155	2	1
2429	Special product sawmills, n.e.c.....	7	26	6	12	22	36	64	105	*1	17	7	40	7	41	7	7
243	Millwork, plywood, and related products.....	152	873	128	266	674	1,427	2,084	3,531	89	443	157	1,430	147	1,240	1	1
2431	Millwork.....	63	358	51	103	259	574	808	1,382	22	209	63	544	65	524	2	1
2432	Veneer and plywood.....	73	416	66	139	358	663	988	1,668	58	179	77	696	66	559	1	1
2433	Prefabricated wood structures.	16	99	11	24	57	190	288	481	*9	55	17	190	16	157	3	3
244	Wooden containers.....	34	147	31	60	120	255	317	574	18	72	33	229	31	174	4	3
2441	Nailed wooden boxes and shooks.	17	79	15	30	63	131	169	301	14	34	16	113	14	85	5	4
2442	Wirebound boxes and crates....	11	41	10	19	34	78	90	167	2	18	11	77	10	56	2	7
2443	Veneer and plywood containers.	*3	*12	*3	*6	*10	*16	*12	*28	*(6)	*3	*3	*13	4	16	25	22
2445	Cooperage.....	3	15	3	5	13	30	46	78	2	17	3	26	3	17	2	4
249	Miscellaneous wood products.	78	374	68	135	284	667	745	1,421	46	185	77	688	69	513	1	1
2491	Wood preserving.....	12	61	11	23	47	116	215	333	8	70	12	126	11	93	7	4
2499	Wood products, n.e.c.....	66	313	57	112	237	551	530	1,088	38	115	65	562	58	420	1	1
25	FURNITURE AND FIXTURES....	429	2,222	357	717	1,622	4,041	3,577	7,634	197	1,091	430	3,990	377	3,068	1	1
251	Household furniture.....	303	1,457	259	518	1,090	2,640	2,504	5,148	114	703	306	2,616	270	2,048	1	1
2511	Wood household furniture.....	159	739	140	284	581	1,302	1,155	2,458	75	392	160	1,295	141	993	1	1
2512	Upholstered household furniture.....	75	362	64	125	272	658	598	1,254	16	133	78	655	68	507	2	1
2514	Metal household furniture.....	31	153	25	49	105	289	302	594	10	82	31	289	29	247	2	2
2515	Mattresses and bedsprings.....	33	177	26	51	114	344	412	758	*9	85	32	336	30	286	2	1
2519	Household furniture, n.e.c.....	5	26	4	9	18	47	37	84	*4	11	5	41	2	15	8	5
252	Office furniture.....	36	224	29	58	159	444	297	743	37	122	34	428	27	285	2	2
2521	Wood office furniture.....	8	45	7	14	33	80	65	143	5	25	8	75	7	57	2	2
2522	Metal office furniture.....	28	179	22	44	126	364	232	600	32	97	26	353	20	228	2	3
2531	Public building furniture.....	19	104	14	30	73	191	167	354	8	70	19	186	17	142	2	2
254	Partitions and fixtures.....	51	328	40	80	229	560	426	996	28	127	51	565	44	433	3	1
2541	Wood partitions and fixtures..	26	169	21	41	123	270	208	486	10	53	25	261	24	219	2	1
2542	Metal partitions and fixtures.	25	159	19	39	106	290	218	510	18	74	26	304	20	214	6	2
259	Miscellaneous furniture and fixtures.....	20	109	15	31	71	206	183	393	10	69	20	195	19	160	5	5
2591	Venetian blinds and shades....	12	60	8	16	36	119	120	232	6	48	12	113	11	94	7	7
2599	Furniture and fixtures, n.e.c.	8	49	7	15	35	87	63	161	4	21	8	82	8	66	8	5
26	PAPER AND ALLIED PRODUCTS.	643	4,440	506	1,074	3,200	9,676	11,298	20,927	1,426	2,231	633	9,419	587	7,396	1	1
2611	Pulpmills.....	15	129	12	26	96	370	408	770	106	96	16	365	15	296	1	1
2621	Papermills, except building paper.....	138	1,102	110	245	836	2,316	2,504	4,815	507	554	135	2,330	130	1,857	1	1
2631	Paperboard mills.....	64	513	51	113	390	1,438	1,371	2,807	405	185	65	1,461	63	1,186	1	1
264	Miscellaneous converted paper products.....	190	1,197	146	303	824	2,814	3,397	6,176	170	695	186	2,666	167	1,963	1	1
2641	Paper coating and glazing....	34	237	23	51	147	611	811	1,418	51	167	36	589	32	457	1	1
2642	Envelopes.....	23	147	18	39	102	260	220	478	18	59	22	243	21	189	1	1
2643	Bags, except textile bags.....	48	285	38	78	203	581	834	1,407	16	165	47	558	42	370	1	1
2644	Wallpaper.....	2	15	1	3	10	23	18	44	*1	11	2	25	2	21	5	3
2645	Die-cut paper and board.....	19	123	15	29	79	243	285	527	7	54	18	233	15	183	1	1
2646	Pressed and molded pulp goods.	7	44	5	11	33	96	48	144	13	16	7	98	6	70	1	1
2647	Sanitary paper products.....	22	152	18	37	118	530	757	1,281	40	83	20	476	19	370	1	1
2649	Converted paper products, n.e.c.....	35	194	28	55	132	470	424	877	24	140	34	444	30	303	5	2

See footnotes at end of table.

## 1967 CENSUS OF MANUFACTURES

7

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>r</sup>		1963		Standard error of change (percent) for columns <sup>1</sup> -	
		All employees		Production workers			Value added by manufac- ture	Cost of mate- rials	Value of ship- ments	Capital expendi- tures, new	End-of- year inven- tories	All employ- ees	Value added by manufac- ture	All employ- ees	Value added by manufac- ture		
		Number	Payroll	Number	Man- hours	Wages											
		(1,000)	(million dollars)	(1,000)	(mil- lions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	K	L
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)				
26	PAPER AND ALLIED PROD- UCTS--Continued																
265	Paperboard containers and boxes.....	224	1,416	177	365	987	2,554	3,458	6,013	218	669	219	2,402	200	1,941	1	1
2651	Folding paperboard boxes.....	55	351	44	91	250	609	713	1,323	41	186	54	585	51	477	1	1
2652	Setup paperboard boxes.....	21	95	18	34	71	132	124	256	7	29	21	132	20	132	3	3
2653	Corrugated and solid fiber boxes.....	98	667	74	155	442	1,149	1,845	2,995	118	255	96	1,091	83	804	1	1
2654	Sanitary food containers.....	33	203	27	56	148	478	572	1,046	38	162	32	426	33	402	1	1
2655	Fiber cans, drums, and related material.....	17	100	14	29	76	186	204	393	14	37	16	168	13	126	1	1
2661	Building paper and board mills.....	12	83	10	22	67	184	160	346	20	32	12	195	12	153	1	1
27	PRINTING AND PUBLISHING....	1,064	7,295	648	1,256	4,099	14,155	7,568	21,677	821	1,927	1,017	13,265	914	10,476	3	1
2711	Newspapers.....	350	2,296	176	324	1,164	4,291	1,620	5,908	285	167	333	4,012	306	3,202	1	1
2721	Periodicals.....	75	600	15	27	85	1,804	1,137	2,930	52	186	72	1,706	68	1,349	1	1
273	Books.....	99	704	49	99	299	1,832	1,051	2,833	106	646	95	1,787	83	1,354	1	1
2731	Book publishing.....	54	388	12	23	63	1,320	773	2,043	54	571	54	1,326	47	996	1	1
2732	Book printing.....	45	316	37	76	236	512	278	790	52	75	41	461	36	358	1	1
2741	Miscellaneous publishing.....	28	182	13	24	68	363	178	543	*6	39	24	321	23	253	3	4
275	Commercial printing.....	351	2,452	274	542	1,755	3,919	2,665	6,636	277	537	337	3,675	300	2,961	8	1
2751	Commercial printing, except lithographic.....	195	1,274	154	299	940	2,033	1,385	3,401	159	310	185	1,914	170	1,578	11	1
2752	Commercial printing, lithographic.....	146	1,097	111	223	752	1,752	1,225	3,053	112	213	141	1,632	121	1,302	12	1
2753	Engraving and plate printing..	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	134	55	182	*6	14	11	129	9	81	11	10
2761	Manifold business forms.....	33	226	24	51	153	530	369	895	31	96	32	486	29	378	1	1
2771	Greeting card publishing.....	28	162	16	32	74	365	191	529	*17	152	27	297	22	205	2	2
278	Blankbooks and bookbinding..	58	312	50	95	237	532	246	778	31	78	54	473	42	340	2	2
2782	Blankbooks and looseleaf binders.....	23	132	19	38	95	251	137	386	13	55	21	220	18	168	2	2
2789	Bookbinding and related work..	35	180	31	57	142	281	109	392	18	23	33	253	24	172	3	3
279	Printing trade services.....	42	361	31	62	264	519	111	625	16	26	43	508	41	434	5	4
2791	Typesetting.....	23	194	18	37	146	274	45	316	8	14	24	267	21	205	9	6
2793	Photoengraving.....	14	128	10	19	94	186	45	228	*7	8	14	181	15	172	6	5
2794	Electrotyping.....	5	39	3	6	24	59	21	81	*1	4	5	60	5	57	3	4
28	CHEMICALS AND ALLIED PRODUCTS.....	854	6,518	544	1,098	3,579	23,440	18,951	42,188	2,833	5,425	824	22,656	737	17,585	1	1
281	Industrial chemicals.....	252	2,110	163	329	1,234	7,685	6,477	14,096	1,219	1,738	246	7,549	237	6,170	1	1
2812	Alkalies and chlorine.....	20	161	13	26	97	437	300	737	128	73	20	467	20	389	1	1
2813	Industrial gases.....	10	75	5	10	34	376	193	567	85	19	10	363	10	260	1	1
2815	Cyclic intermediates and crudes.....	28	238	19	39	144	708	784	1,485	128	243	29	742	28	605	1	1
2816	Inorganic pigments.....	13	97	9	18	64	323	225	546	25	114	13	340	12	286	1	1
2818	Industrial organic chemicals, n.e.c.....	98	868	65	131	509	3,637	2,975	6,582	639	818	96	3,641	85	2,727	1	1
2819	Industrial inorganic chemicals, n.e.c.....	83	671	52	105	386	2,204	2,000	4,179	214	471	78	1,996	82	1,903	1	1
282	Plastics materials and synthetics.....	177	1,314	122	247	809	3,887	3,529	7,427	940	869	177	3,999	144	2,866	1	1
2821	Plastics materials and resins.	74	591	49	100	343	1,722	1,879	3,584	621	403	71	1,703	61	1,202	1	1
2822	Synthetic rubber.....	13	111	8	17	68	411	513	927	37	94	13	443	12	330	2	1
2823	Cellulosic manmade fibers.....	28	162	22	44	120	420	307	735	45	100	34	551	30	412	1	1
2824	Organic fibers, noncellulosic.	62	450	43	86	278	1,334	830	2,181	237	272	59	1,302	41	922	1	1
283	Drugs.....	119	946	66	130	401	3,999	1,300	5,256	198	762	109	3,675	99	2,807	1	1
2831	Biological products.....	6	50	4	8	23	94	51	140	11	45	6	79	6	60	4	4
2833	Medicinals and botanicals....	6	51	4	8	28	201	177	373	22	65	5	149	8	151	1	1
2834	Pharmaceutical preparations...	107	845	58	114	350	3,704	1,072	4,743	165	652	98	3,447	85	2,596	1	1

See footnotes at end of table.



## 1967 CENSUS OF MANUFACTURES

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>2</sup>		1963		Standard error of change (percent) for columns <sup>1</sup> -	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	K	L
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)		
28	CHEMICALS AND ALLIED PRODUCTS--Continued																
284	Soap, cleaners, and toilet goods.....	97	697	61	120	346	3,848	2,635	6,454	100	670	96	3,649	85	2,866	1	1
2841	Soap and other detergents....	30	243	20	40	144	1,374	1,185	2,551	42	244	29	1,297	31	1,137	3	1
2842	Polishes and sanitation goods..	22	146	13	26	62	659	497	1,151	*18	118	21	564	16	420	4	3
2843	Surface active agents.....	5	47	3	6	19	121	153	272	8	33	5	113	4	76	3	2
2844	Toilet preparations.....	40	261	25	48	121	1,694	800	2,480	32	275	41	1,675	34	1,233	1	1
2851	Paints and allied products....	67	503	37	74	230	1,302	1,615	2,924	55	418	67	1,348	61	1,112	1	1
2861	Gum and wood chemicals.....	5	34	4	8	24	105	116	224	*19	44	5	99	7	100	4	1
287	Agricultural chemicals.....	47	282	31	66	164	940	1,785	2,694	139	499	48	910	43	628	1	1
2871	Fertilizers.....	21	131	15	35	88	414	781	1,176	86	238	22	418	20	288	1	1
2872	Fertilizers, mixing only.....	14	70	9	18	38	194	541	744	13	136	15	214	14	164	4	2
2879	Agricultural chemicals, n.e.c.	12	81	7	13	38	332	463	774	40	125	11	278	9	176	1	1
289	Miscellaneous chemical products.....	90	632	60	124	371	1,674	1,494	3,113	163	425	76	1,427	61	1,036	2	1
2891	Adhesives and gelatin.....	11	80	7	14	39	226	281	505	*13	62	9	199	9	147	1	1
2892	Explosives.....	34	230	25	49	159	462	269	661	70	148	24	255	15	166	1	1
2893	Printing ink.....	10	78	6	14	43	190	207	395	*7	47	10	181	8	125	4	4
2895	Carbon black.....	3	23	2	5	18	101	72	176	15	15	3	113	3	92	1	1
2899	Chemical preparations, n.e.c..	32	221	20	42	112	695	665	1,376	58	153	30	679	26	506	5	1
29	PETROLEUM AND COAL PRODUCTS.....	140	1,196	100	200	778	5,356	16,696	21,967	1,004	2,010	141	4,736	153	3,714	2	1
2911	Petroleum refining.....	106	958	75	152	630	4,685	15,674	20,267	966	1,884	107	4,082	119	3,138	1	1
295	Paving and roofing materials	26	173	20	39	118	427	674	1,106	29	61	25	412	25	356	2	1
2951	Paving mixtures and blocks....	10	73	8	15	47	199	298	498	20	16	10	186	10	166	2	1
2952	Asphalt felts and coatings....	16	100	12	24	71	228	376	608	9	45	15	226	15	190	3	1
299	Miscellaneous petroleum and coal products.....	8	65	5	9	30	244	348	594	9	65	9	242	9	220	2	1
2992	Lubricating oils and greases..	7	57	4	7	24	218	296	517	7	54	8	220	8	199	2	1
2999	Petroleum and coal products, n.e.c.....	1	8	1	2	6	26	52	77	2	11	1	22	1	21	1	1
30	RUBBER AND PLASTICS PRODUCTS, N.E.C.....	504	3,193	397	788	2,229	6,474	5,868	12,362	605	1,608	492	6,278	414	4,654	1	1
3011	Tires and inner tubes.....	94	782	72	138	577	1,718	1,990	3,721	225	543	93	1,768	85	1,322	1	1
3021	Rubber footwear.....	28	138	25	45	109	236	165	404	9	89	29	242	29	217	1	1
3031	Reclaimed rubber.....	2	13	1	3	9	24	24	49	2	6	2	25	2	27	1	1
3069	Fabricated rubber products, n.e.c.....	142	923	107	215	615	1,734	1,399	3,139	112	396	144	1,727	132	1,427	1	1
3079	Miscellaneous plastics products.....	238	1,337	192	387	919	2,762	2,290	5,049	257	574	224	2,516	166	1,661	2	1
31	LEATHER AND LEATHER PRODUCTS.....	332	1,468	294	553	1,150	2,577	2,543	4,877	61	639	342	2,480	327	2,080	1	1
3111	Leather tanning and finishing.	32	190	27	54	144	320	531	858	17	132	33	326	31	273	2	1
3121	Industrial leather belting....	2	15	2	3	10	30	18	48	1	7	3	34	3	33	2	7
3131	Footwear cut stock.....	15	71	13	25	52	121	180	303	*2	25	14	104	14	91	10	7
314	Footwear, except rubber.....	211	888	190	353	719	1,582	1,316	2,914	28	348	220	1,533	213	1,280	1	1
3141	Shoes, except rubber.....	198	835	179	332	680	1,492	1,239	2,747	27	330	206	1,446	202	1,215	1	1
3142	House slippers.....	13	53	11	21	39	90	77	167	1	18	14	87	11	65	2	3
3151	Leather gloves and mittens....	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	7	37	8	32	6	5
3161	Luggage.....	22	98	19	36	71	174	170	342	6	50	20	144	16	113	2	3
317	Handbags and personal leather goods.....	38	156	32	63	116	264	222	221	*5	51	39	254	37	225	3	2
3171	Women's handbags and purses...	23	95	20	40	75	158	140	30	*3	22	23	149	25	143	4	3
3172	Personal leather goods.....	15	61	12	23	41	106	82	191	2	29	16	105	12	82	4	3
3199	Leather goods, n.e.c.....	6	27	6	10	20	47	46	93	*1	11	6	48	5	33	12	10

See footnotes at end of table.

## 1967 CENSUS OF MANUFACTURES

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## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>2</sup>		1963		Standard error of change (percent) for columns <sup>1</sup> --	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	(K)	(L)	
32	STONE, CLAY, AND GLASS PRODUCTS.....	605	3,877	476	967	2,805	8,408	6,105	14,769	722	1,862	618	8,493	573	7,045	2	1
3211	Flat glass.....	23	193	19	39	155	409	188	592	49	92	25	431	23	364	1	1
322	Glass and glassware, pressed or blown.....	109	691	97	193	577	1,525	725	2,268	141	286	107	1,472	98	1,102	1	1
3221	Glass containers.....	68	433	61	122	368	857	500	1,379	76	157	64	763	60	630	1	1
3229	Pressed and blown glass, n.e.c.	41	258	36	71	209	668	225	889	65	129	43	709	38	472	1	1
3231	Products of purchased glass...	31	191	25	50	138	402	414	803	22	135	30	376	26	310	2	1
3241	Cement, hydraulic.....	32	242	26	52	182	823	413	1,232	80	197	34	839	35	786	1	1
325	Structural clay products....	62	349	51	105	261	613	321	933	58	192	65	642	65	554	1	1
3251	Brick and structural clay tile	29	147	24	50	114	267	120	381	28	67	29	275	29	217	1	1
3253	Ceramic wall and floor tile...	9	54	8	16	37	91	49	144	4	32	12	105	13	111	1	1
3255	Clay refractories.....	13	86	10	20	61	149	100	248	17	64	13	159	11	118	2	2
3259	Structural clay products, n.e.c.....	11	62	9	19	49	106	52	160	9	29	11	103	12	108	1	1
326	Pottery and related products	44	244	37	71	189	419	187	601	18	98	43	414	41	338	1	1
3261	Vitreous plumbing fixtures....	9	58	7	14	47	115	59	173	2	26	9	118	9	102	1	1
3262	Vitreous china food utensils..	7	34	6	11	26	54	10	63	2	15	7	50	6	43	1	1
3263	Fine earthenware food utensils	7	31	6	11	25	39	15	55	1	12	6	34	7	41	1	1
3264	Porcelain electrical supplies.	12	78	10	20	59	139	63	199	9	30	12	139	10	90	1	1
3269	Pottery products, n.e.c.....	9	43	8	15	32	72	40	111	*4	15	9	73	9	62	1	1
327	Concrete, gypsum, and plaster products.....	172	1,093	122	256	705	2,367	2,438	5,049	213	342	180	2,379	166	2,123	2	1
3271	Concrete block and brick.....	24	142	17	35	84	299	292	594	28	67	24	297	24	246	1	1
3272	Concrete products, n.e.c.....	59	347	45	94	242	708	468	1,193	46	151	61	692	52	540	2	2
3273	Ready-mixed concrete.....	71	485	46	96	289	1,019	1,437	2,476	104	68	77	1,051	72	982	2	1
3274	Lime.....	8	50	6	14	39	120	82	203	*22	16	7	117	7	95	8	10
3275	Gypsum products.....	10	69	8	17	51	221	159	583	13	40	11	222	11	260	1	1
3281	Cut stone and stone products..	17	92	14	29	68	139	87	228	4	31	17	135	18	131	4	7
329	Miscellaneous nonmetallic mineral products.....	115	782	85	172	530	1,711	1,332	3,063	137	489	117	1,805	101	1,337	1	1
3291	Abrasive products.....	35	245	23	45	146	570	393	968	44	164	35	620	28	416	1	1
3292	Asbestos products.....	22	151	17	36	114	310	270	585	18	110	23	324	20	269	1	1
3293	Gaskets and insulations.....	18	117	14	27	75	208	161	371	8	55	18	203	17	161	1	2
3295	Minerals, ground or treated...	9	59	7	14	41	157	120	282	*17	26	9	165	7	102	3	4
3296	Mineral wool.....	15	106	12	25	83	246	203	453	31	34	16	252	15	207	1	1
3297	Nonclay refractories.....	10	70	7	15	48	158	140	299	15	86	10	172	9	129	1	1
3299	Nonmetallic mineral products, n.e.c.....	6	34	5	10	23	62	45	105	*4	14	6	69	5	53	4	1
33	PRIMARY METAL INDUSTRIES..	1,283	9,837	1,041	2,080	7,450	20,148	27,329	47,023	2,968	7,919	1,297	20,901	1,125	15,263	1	1
331	Blast furnace and basic steel products.....	619	5,015	502	976	3,834	10,424	13,408	23,547	1,800	4,591	637	10,919	569	8,618	1	1
3312	Blast furnaces and steel mills	541	4,428	440	850	3,408	9,197	11,344	20,297	1,682	3,995	559	9,644	501	7,700	1	1
3313	Electrometallurgical products.	10	78	8	17	58	193	299	476	29	114	10	198	10	146	1	1
3315	Steel wire and related products.....	25	179	20	40	127	333	433	761	28	149	25	353	21	253	1	1
3316	Cold finishing of steel shapes	17	128	13	25	91	279	620	895	27	141	17	307	14	224	3	1
3317	Steel pipe and tubes.....	26	202	21	44	150	422	712	1,118	34	192	26	417	23	295	1	1
332	Iron and steel foundries....	237	1,666	202	408	1,327	2,701	1,635	4,370	253	413	238	2,796	200	1,960	1	1
3321	Gray iron foundries.....	143	993	123	250	804	1,603	1,090	2,718	173	243	141	1,646	121	1,168	1	1
3322	Malleable iron foundries.....	26	190	22	44	149	298	144	441	23	31	26	295	22	205	1	1
3323	Steel foundries.....	68	483	57	114	374	800	401	1,211	57	139	71	855	57	587	1	1
333	Primary nonferrous metals...	53	410	42	86	300	1,362	2,309	3,598	248	555	56	1,416	49	1,014	1	1
3331	Primary copper.....	11	80	9	18	60	256	844	1,103	52	161	16	363	15	286	1	1
3332	Primary lead.....	2	16	2	4	11	47	237	269	3	89	3	65	3	25	1	1
3333	Primary zinc.....	8	58	6	13	43	108	228	329	26	59	9	134	8	99	1	1
3334	Primary aluminum.....	24	191	19	38	144	806	824	1,587	143	173	21	725	18	500	1	1
3339	Primary nonferrous metals, n.e.c.....	8	65	6	13	42	145	170	310	24	73	7	129	5	104	1	1
3341	Secondary nonferrous metals...	17	122	12	26	78	285	1,281	1,585	49	160	17	293	15	228	5	1

See footnotes at end of table.



## 1967 CENSUS OF MANUFACTURES

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>r</sup>		1963		Standard error of change (percent) for columns <sup>1-2</sup>	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(mil-lions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	(K)	(L)	
	PRIMARY METAL INDUSTRIES--Continued																
335	Nonferrous rolling and drawing.....	195	1,437	151	313	1,034	3,291	6,837	9,966	466	1,730	194	3,481	166	2,128	1	1
3351	Copper rolling and drawing....	40	289	32	64	216	685	1,622	2,336	68	267	41	898	39	478	1	1
3352	Aluminum rolling and drawing..	63	481	50	103	366	935	2,131	3,040	163	662	63	862	54	721	1	1
3356	Nonferrous rolling and drawing, n.e.c.....	23	175	16	33	107	379	703	1,063	57	294	21	380	17	251	1	1
3357	Nonferrous wiredrawing and insulating.....	69	492	53	113	345	1,292	2,381	3,527	178	507	69	1,341	56	678	1	1
336	Nonferrous foundries.....	90	605	76	155	449	1,052	852	1,902	66	164	86	991	69	657	2	2
3361	Aluminum castings.....	47	321	40	81	245	527	412	937	39	70	45	499	36	344	4	4
3362	Brass, bronze, and copper castings.....	17	110	14	29	72	200	200	401	10	41	18	217	15	144	3	3
3369	Nonferrous castings, n.e.c....	26	174	22	45	132	325	240	564	17	53	23	275	18	169	2	2
339	Miscellaneous primary metal products.....	72	582	56	116	428	1,033	1,007	2,055	86	306	69	1,005	57	658	1	1
3391	Iron and steel forgings.....	42	350	33	67	268	607	661	1,271	39	196	41	595	36	395	1	1
3392	Nonferrous forgings.....	10	86	7	16	61	136	182	329	27	68	10	146	6	71	3	3
3399	Primary metal products, n.e.c.	20	146	16	33	99	290	164	455	20	42	18	264	15	192	4	4
34	FABRICATED METAL PRODUCTS.	1,307	9,009	1,023	2,093	6,253	17,054	16,119	33,191	1,009	5,474	1,252	15,792	1,082	11,792	1	1
3411	Metal cans.....	60	470	52	111	388	1,174	1,736	2,883	88	445	59	1,043	53	831	1	1
342	Cutlery, handtools, and hardware.....	157	1,069	125	254	750	2,327	1,434	3,733	116	669	161	2,269	136	1,708	1	1
3421	Cutlery.....	11	83	10	20	55	253	124	376	12	64	14	260	12	214	2	2
3423	Hand and edge tools, n.e.c....	39	253	31	62	176	544	319	854	26	191	38	512	31	364	1	1
3425	Handsaws and saw blades.....	6	43	5	11	31	95	53	146	4	31	6	99	5	66	3	3
3429	Hardware, n.e.c.....	101	690	79	161	488	1,435	938	2,357	74	383	103	1,398	88	1,064	1	1
343	Plumbing and heating, except electric.....	69	443	52	102	291	879	952	1,842	37	390	71	889	68	791	1	1
3431	Metal sanitary ware.....	11	78	9	18	57	150	114	265	9	49	12	146	11	140	2	2
3432	Plumbing fittings and brass goods.....	14	84	11	21	58	162	214	384	5	84	15	183	15	155	6	6
3433	Heating equipment, except electric.....	44	281	32	63	176	567	624	1,193	23	257	44	560	42	496	1	1
344	Fabricated structural metal products.....	374	2,571	279	571	1,685	4,513	5,153	9,743	250	1,705	371	4,371	326	3,219	1	1
3441	Fabricated structural steel...	94	679	70	143	441	1,099	1,442	2,591	75	535	97	1,060	85	815	1	1
3442	Metal doors, sash, and trim...	64	368	46	94	225	636	753	1,399	21	205	64	639	63	570	2	2
3443	Fabricated platework (boiler shops).....	94	672	71	145	456	1,239	1,241	2,473	78	480	91	1,181	75	770	1	1
3444	Sheet metalwork.....	74	529	57	116	359	919	954	1,895	47	273	72	883	62	632	2	2
3446	Architectural metalwork.....	18	118	14	28	80	221	169	384	*6	46	17	192	16	149	2	2
3449	Miscellaneous metalwork.....	30	205	21	45	124	399	594	1,001	23	166	30	416	25	283	1	1
345	Screw machine products, bolts, etc.....	114	826	90	190	584	1,565	1,089	2,628	117	425	109	1,518	95	1,054	3	3
3451	Screw machine products.....	51	343	42	88	256	604	395	1,003	55	105	46	555	37	359	2	2
3452	Bolts, nuts, rivets, and washers.....	63	483	48	102	328	961	694	1,625	62	320	63	963	58	695	5	5
3461	Metal stampings <sup>7</sup> .....	210	1,517	174	348	1,132	2,761	2,627	5,379	170	648	164	1,904	132	1,369	1	1
347	Metal services, n.e.c.....	81	489	68	138	351	839	400	1,247	50	103	76	781	66	555	2	2
3471	Plating and polishing.....	53	321	45	92	233	536	200	747	32	36	51	510	45	370	2	2
3479	Metal coating and allied services.....	28	168	23	46	118	303	200	500	18	67	25	271	21	185	5	5
3481	Miscellaneous fabricated wire products.....	65	398	53	111	277	711	604	1,318	43	182	65	710	56	539	2	2

See footnotes at end of table.

## 1967 CENSUS OF MANUFACTURES

11

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>r</sup>		1963		Standard error of change (percent) for columns <sup>1--</sup>	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	K	L
34	FABRICATED METAL PROD-UCTS--Continued																
349	Miscellaneous fabricated metal products.....	177	1,226	130	268	795	2,285	2,124	4,418	138	907	176	2,307	150	1,726	1	1
3491	Metal barrels, drums, and pails	12	85	10	20	59	159	219	378	9	55	12	146	11	120	6	3
3492	Safes and vaults.....	4	26	2	5	16	67	33	99	2	21	4	64	3	56	1	1
3493	Steel springs.....	5	37	4	8	27	62	71	134	4	22	6	70	6	69	1	1
3494	Valves and pipe fittings.....	89	634	62	129	397	1,229	860	2,069	73	543	92	1,322	80	943	1	1
3496	Collapsible tubes.....	5	26	4	8	20	42	29	70	4	8	4	39	4	31	1	3
3497	Metal foil and leaf.....	6	45	4	10	30	87	120	207	8	33	5	79	5	63	2	1
3498	Fabricated pipe and fittings..	18	126	13	27	80	179	309	522	11	86	16	146	13	145	5	2
3499	Fabricated metal products, n.e.c.....	38	247	31	61	166	460	483	939	*27	139	37	441	28	299	4	2
35	MACHINERY, EXCEPT ELEC-TRICAL.....	1,872	14,300	1,345	2,813	9,236	27,697	21,715	49,077	1,739	10,819	1,801	27,037	1,462	17,307	2	1
351	Engines and turbines.....	107	889	77	161	596	1,691	1,702	3,376	159	780	98	1,580	87	1,114	1	1
3511	Steam engines and turbines....	41	368	28	59	237	662	571	1,218	61	354	34	505	31	380	1	1
3519	Internal combustion engines, n.e.c.....	66	521	49	102	359	1,029	1,131	2,158	98	426	64	1,075	56	734	1	1
3522	Farm machinery.....	141	989	107	209	684	2,091	2,399	4,428	146	996	137	2,057	113	1,328	1	1
353	Construction and related machinery.....	260	1,936	179	366	1,218	3,854	3,630	7,490	252	1,853	261	3,965	212	2,731	1	1
3531	Construction machinery.....	120	893	88	176	601	1,778	1,913	3,685	156	934	121	1,881	105	1,301	1	1
3532	Mining machinery.....	23	164	16	32	104	328	328	660	22	176	22	306	17	215	2	2
3533	Oilfield machinery.....	33	239	22	47	144	465	313	792	24	239	36	514	29	398	1	1
3534	Elevators and moving stairways	14	104	8	17	58	253	127	376	3	96	14	236	12	202	1	1
3535	Conveyors and conveying equipment.....	27	207	16	34	109	401	367	765	12	129	26	386	21	270	1	1
3536	Hoists, cranes, and monorails.	17	133	12	24	86	233	211	452	12	93	16	237	10	112	1	1
3537	Industrial trucks and tractors	26	196	17	36	116	396	371	760	23	186	26	405	18	233	1	1
354	Metalworking machinery.....	347	2,935	262	579	2,014	5,154	2,549	7,576	306	1,562	330	4,899	259	3,036	4	1
3541	Machine tools, metal-cutting types.....	84	734	58	128	460	1,357	739	2,050	72	531	80	1,234	61	699	2	1
3542	Machine tools, metal-forming types.....	30	259	21	47	168	458	314	757	27	209	28	432	22	281	6	3
3544	Special dies, tools, jigs, and fixtures.....	123	1,093	103	234	835	1,714	601	2,276	110	212	120	1,665	91	1,029	4	1
3545	Machine tool accessories.....	62	499	46	99	323	933	403	1,327	57	273	56	883	47	559	1	1
3548	Metalworking machinery, n.e.c.	48	350	34	71	228	692	492	1,166	40	337	46	685	38	468	4	2
355	Special industry machinery..	212	1,593	147	311	981	2,857	2,205	5,061	178	1,200	211	2,851	172	1,916	1	1
3551	Food products machinery.....	36	268	24	51	160	554	357	910	29	205	35	520	32	380	1	2
3552	Textile machinery.....	41	266	31	65	178	411	339	758	24	193	43	456	36	314	1	1
3553	Woodworking machinery.....	16	107	12	24	66	219	164	382	11	84	16	231	12	147	1	1
3554	Paper industries machinery....	20	165	14	30	107	258	252	514	19	125	20	263	19	217	1	1
3555	Printing trades machinery.....	29	240	20	41	147	468	308	752	26	207	27	399	23	286	1	1
3559	Special industry machinery, n.e.c.....	70	547	46	100	323	947	785	1,745	69	386	70	982	50	572	1	2
356	General industrial machinery	283	2,191	198	418	1,381	4,212	2,932	7,081	290	1,568	280	4,195	233	2,814	1	1
3561	Pumps and compressors.....	80	594	51	108	343	1,259	1,017	2,251	63	588	79	1,202	61	769	1	1
3562	Ball and roller bearings.....	60	462	48	102	348	840	518	1,345	106	313	61	872	52	628	1	1
3564	Blowers and fans.....	20	145	14	30	91	295	220	515	13	82	18	253	15	181	3	2
3565	Industrial patterns.....	12	123	11	23	103	186	51	236	*14	15	12	187	10	113	10	6
3566	Power transmission equipment..	55	417	41	86	281	812	499	1,299	50	291	55	829	47	556	1	1
3567	Industrial furnaces and ovens.	14	117	8	16	51	208	204	411	6	60	14	213	12	143	2	1
3569	General industrial machinery, n.e.c.....	42	333	25	53	164	612	423	1,024	38	219	41	639	36	424	2	1
357	Office and computing machines.....	197	1,530	122	248	790	3,644	2,974	6,585	166	1,576	184	3,650	137	1,633	1	1
3571	Computing and related machines <sup>8</sup> .....	144	1,173	85	174	569	2,739	2,573	5,326	125	1,300	136	2,828	96	1,101	1	1
3572	Typewriters.....	25	164	19	37	113	467	148	581	20	107	22	424	18	243	1	1
3576	Scales and balances.....	7	48	4	10	26	89	54	141	4	39	7	87	6	64	5	6
3579	Office machines, n.e.c.....	21	145	14	27	82	349	199	537	*17	130	19	311	17	225	2	4
358	Service industry machines...	145	973	103	212	618	2,045	2,275	4,284	116	975	136	1,913	113	1,369	2	1
3581	Automatic merchandising machines.....	12	69	9	18	47	157	138	292	6	74	12	150	12	121	1	1
3582	Commercial laundry equipment..	8	53	6	12	32	99	89	191	5	44	8	103	7	71	1	2
3585	Refrigeration machinery.....	95	633	69	141	421	1,365	1,655	2,977	91	687	88	1,236	72	893	1	1
3586	Measuring and dispensing pumps	8	56	5	11	31	115	88	201	5	50	8	122	7	92	1	1
3589	Service industry machines, n.e.c.....	22	162	14	30	87	309	305	623	9	120	20	302	15	192	2	1
3599	Miscellaneous machinery, except electrical.....	180	1,264	150	309	954	2,149	1,049	3,196	126	309	164	1,927	136	1,366	2	1

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>x</sup>		1963		Standard error of change (percent) for columns <sup>1-4</sup>	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	K	L
36	ELECTRICAL EQUIPMENT AND SUPPLIES.....	1,884	12,936	1,338	2,630	7,571	24,855	19,369	43,606	1,462	8,545	1,814	23,544	1,511	17,011	1	1
361	Electric test and distributing equipment.....	173	1,203	122	244	722	2,503	1,519	3,985	126	821	163	2,276	132	1,535	1	1
3611	Electric measuring instruments	61	413	41	79	220	809	378	1,176	40	277	56	720	45	505	2	1
3612	Transformers.....	45	313	33	67	206	679	511	1,167	48	234	42	584	33	382	1	1
3613	Switchgear and switchboard apparatus.....	67	477	48	98	296	1,015	630	1,642	38	310	65	972	54	648	1	1
362	Electrical industrial apparatus.....	215	1,451	160	321	942	2,865	1,963	4,798	185	948	204	2,737	161	1,889	1	1
3621	Motors and generators.....	112	748	87	172	502	1,400	993	2,398	94	445	112	1,366	94	993	1	1
3622	Industrial controls.....	52	364	35	71	215	786	398	1,159	32	249	46	719	33	451	2	1
3623	Welding apparatus.....	15	125	10	22	77	252	259	511	15	102	14	265	10	162	4	2
3624	Carbon and graphite products..	12	84	9	19	59	186	123	302	32	67	11	175	10	141	2	1
3629	Electrical industrial apparatus, n.e.c.....	24	130	19	37	89	241	190	428	12	85	21	212	14	142	4	3
363	Household appliances.....	173	1,116	138	268	798	2,607	2,823	5,451	123	1,023	170	2,500	146	2,097	1	1
3631	Household cooking equipment...	21	130	16	32	89	258	294	557	9	109	21	254	19	230	1	1
3632	Household refrigerators and freezers.....	53	377	44	84	289	794	1,020	1,777	44	341	54	752	43	631	1	1
3633	Household laundry equipment...	23	164	18	36	120	433	590	1,035	22	148	23	416	18	354	1	1
3634	Electric housewares and fans..	45	240	36	69	162	605	502	1,156	25	243	45	613	39	464	1	1
3635	Household vacuum cleaners.....	12	69	9	16	45	205	129	327	7	63	8	156	6	116	1	1
3636	Sewing machines.....	6	48	5	10	34	96	32	126	6	48	6	97	8	98	1	1
3639	Household appliances, n.e.c...	13	88	10	21	59	216	256	473	10	71	13	212	13	204	1	1
364	Electric lighting and wiring equipment.....	160	968	125	246	652	2,221	1,769	3,903	138	648	156	2,135	132	1,560	1	1
3641	Electric lamps.....	29	168	25	49	135	527	247	770	48	83	28	495	23	362	1	1
3642	Lighting fixtures.....	66	399	51	101	258	834	869	1,640	40	259	65	782	54	588	1	1
3643	Current carrying wiring devices.....	41	233	31	60	149	499	347	831	29	168	39	498	35	356	1	1
3644	Noncurrent carrying wiring devices.....	24	168	18	36	110	361	306	662	*21	138	24	360	20	254	3	2
365	Radio and TV receiving equipment.....	133	725	109	206	523	1,646	2,609	4,175	97	778	141	1,831	91	1,037	1	1
3651	Radio and TV receiving sets...	120	655	99	186	473	1,476	2,532	3,929	85	742	130	1,675	81	912	1	1
3652	Phonograph records.....	13	70	10	20	50	170	77	246	12	36	11	156	10	125	1	1
366	Communication equipment.....	523	4,361	303	603	2,017	6,913	4,455	11,079	348	2,626	490	6,287	476	5,342	1	1
3661	Telephone and telegraph apparatus.....	116	830	84	159	535	1,534	1,085	2,602	109	532	113	1,432	89	1,014	1	1
3662	Radio and TV communication equipment.....	407	3,531	219	444	1,482	5,379	3,370	8,477	239	2,094	377	4,855	387	4,328	1	1
367	Electronic components and accessories.....	396	2,389	293	575	1,417	4,517	2,925	7,410	358	1,275	384	4,283	289	2,508	1	1
3671	Electron tubes, receiving type	21	119	18	33	87	222	71	294	7	23	24	244	26	251	1	1
3672	Cathode ray picture tubes....	28	181	20	41	110	460	358	831	46	87	25	473	11	128	1	1
3673	Electron tubes, transmitting..	17	144	12	25	84	242	109	351	13	79	19	252	19	205	1	1
3674	Semiconductors.....	83	520	57	113	278	826	313	1,132	119	190	82	835	56	467	1	1
3679	Electronic components, n.e.c..	247	1,425	186	363	858	2,767	2,074	4,802	173	896	234	2,479	177	1,457	1	1
369	Miscellaneous electrical equipment and supplies....	111	723	88	167	500	1,583	1,306	2,805	87	426	106	1,495	84	1,043	1	1
3691	Storage batteries.....	20	139	16	31	101	295	331	609	*14	93	19	284	18	244	2	1
3692	Primary batteries, dry and wet	11	59	9	17	41	179	119	295	12	45	10	167	8	114	1	1
3693	X-ray apparatus and tubes....	8	61	5	9	29	121	101	220	3	51	8	141	6	87	1	1
3694	Engine electrical equipment...	51	355	41	80	261	769	568	1,283	47	179	52	735	41	497	1	1
3699	Electrical equipment, n.e.c...	21	109	17	30	68	219	187	398	*11	58	17	168	11	101	4	5
37	TRANSPORTATION EQUIPMENT..	1,890	15,602	1,380	2,805	10,187	28,901	41,731	70,539	1,717	11,713	1,891	29,249	1,601	22,764	1	1
371	Motor vehicles and equipment	781	6,236	646	1,292	4,855	14,266	28,016	42,228	864	3,634	859	16,086	693	12,780	1	1
3713	Truck and bus bodies.....	34	213	28	55	155	392	490	872	19	143	32	322	24	229	8	1
3715	Truck trailers.....	26	165	21	41	118	309	478	782	19	141	28	314	19	205	1	1
3717	Motor vehicles and parts <sup>7</sup> ....	721	5,858	597	1,196	4,582	13,565	27,048	40,574	826	3,350	799	15,450	650	12,346	1	1
372	Aircraft and parts.....	824	7,403	499	1,054	3,843	11,602	9,932	21,474	712	6,663	745	10,031	679	7,867	1	1
3721	Aircraft.....	404	3,742	236	488	1,842	5,680	5,712	11,392	327	4,610	357	9,675	302	9,543	1	1
3722	Aircraft engines and engine parts.....	199	1,806	114	247	883	2,974	2,373	5,320	*227	1,060	188	2,765	191	2,244	1	1
3723	Aircraft propellers and parts.	11	106	7	14	50	160	97	250	10	61	10	133	11	113	1	1
3729	Aircraft equipment, n.e.c.....	210	1,749	142	305	1,068	2,788	1,750	4,512	148	932	190	2,458	175	1,967	1	1

See footnotes at end of table.



## 1967 CENSUS OF MANUFACTURES

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## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>2</sup>		1963		Standard error of change (percent) for columns <sup>1</sup> --	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	(K)	(L)	
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)		
37	TRANSPORTATION EQUIPMENT-- Continued																
373	Ship and boat building and repairing.....	165	1,198	137	272	924	1,627	1,327	2,956	78	890	166	1,609	140	1,193	6	1
3731	Ship building and repairing...	132	1,035	110	219	796	1,360	1,037	2,397	66	755	135	1,362	115	1,010	1	1
3732	Boat building and repairing...	33	163	27	53	128	267	290	559	12	135	31	247	25	183	3	1
374	Railroad equipment.....	56	419	44	84	307	768	1,285	2,101	41	337	61	960	45	541	1	1
3741	Locomotives and parts.....	16	131	12	23	90	312	382	691	12	121	17	318	14	186	1	1
3742	Railroad and street cars.....	40	288	32	61	217	456	903	1,410	29	216	44	642	31	355	1	1
3751	Motorcycles, bicycles, and parts.....	12	69	10	19	53	136	167	295	5	59	12	113	10	82	1	1
379	Miscellaneous transportation equipment.....	52	277	44	84	205	502	1,004	1,485	17	130	48	450	34	301	2	1
3791	Trailer coaches.....	42	225	36	68	168	398	855	1,231	11	90	39	355	26	232	2	1
3799	Transportation equipment, n.e.c.....	10	52	8	16	37	104	149	254	*6	40	9	95	8	69	4	5
38	INSTRUMENTS AND RELATED PRODUCTS.....	377	2,684	255	501	1,503	6,063	3,434	9,503	359	1,887	362	5,832	305	3,993	1	1
3811	Engineering and scientific instruments.....	42	289	28	59	171	523	365	887	16	195	38	471	33	359	5	2
382	Mechanical measuring and control devices.....	104	734	67	127	399	1,346	691	2,071	58	516	104	1,390	94	1,112	1	1
3821	Mechanical measuring devices..	72	518	45	82	263	929	493	1,450	44	386	71	951	62	733	1	1
3822	Automatic temperature controls	32	216	22	45	136	417	198	621	14	130	33	439	32	379	1	1
3831	Optical instruments and lenses	17	137	11	22	69	228	105	333	11	81	17	225	12	132	1	1
384	Medical instruments and supplies.....	67	406	48	95	243	933	566	1,481	61	296	62	825	51	635	2	2
3841	Surgical and medical instruments.....	20	126	15	30	75	255	159	405	17	89	18	228	15	169	3	3
3842	Surgical appliances and supplies.....	37	216	26	52	131	545	333	866	39	161	35	467	28	370	9	5
3843	Dental equipment and supplies.	10	64	7	13	37	133	74	210	*5	46	9	130	8	96	1	2
3851	Ophthalmic goods.....	23	125	19	36	89	250	117	362	13	90	23	237	20	178	1	1
3861	Photographic equipment and supplies.....	89	785	55	108	393	2,397	1,191	3,591	191	535	84	2,282	65	1,270	1	1
387	Watches, clocks, and watchcases.....	35	208	27	54	139	386	399	778	9	174	34	402	30	307	1	1
3871	Watches and clocks.....	31	185	24	48	120	351	372	716	8	165	30	367	27	288	1	1
3872	Watchcases.....	4	23	3	6	19	35	27	62	1	9	4	35	3	19	2	4
39	MISCELLANEOUS MANUFACTURING INDUSTRIES.....	423	2,273	342	663	1,540	4,525	3,953	8,413	188	1,476	418	4,395	404	3,562	1	2
391	Jewelry, silverware, and plated ware.....	54	310	42	84	207	663	702	1,338	12	277	51	587	44	416	3	2
3911	Jewelry, precious metal.....	31	174	23	45	103	386	434	805	6	155	29	328	24	235	5	3
3912	Jewelers' findings and materials.....	6	27	5	9	18	52	69	119	*1	18	5	46	5	34	3	8
3913	Lapidary work.....	2	12	1	3	8	26	52	76	(6)	18	2	23	2	16	16	3
3914	Silverware and plated ware....	15	97	13	27	78	199	147	338	*5	86	15	190	13	131	1	1
3931	Musical instruments and parts.	28	160	23	46	117	254	234	492	*7	122	25	248	20	179	1	1
394	Toys and sporting goods.....	116	565	96	183	389	1,179	1,085	2,267	*61	420	119	1,197	114	978	3	1
3941	Games and toys.....	57	275	48	91	182	600	534	1,151	30	169	62	622	52	444	1	2
3942	Dolls.....	12	44	10	18	33	80	75	156	1	15	12	75	16	138	3	3
3943	Children's vehicles, except bicycles.....	5	25	4	9	18	51	53	103	5	17	5	48	5	35	10	9
3949	Sporting and athletic goods, n.e.c.....	42	221	34	65	156	448	423	857	*25	224	40	452	41	361	1	1

See footnotes at end of table.

## 1967 CENSUS OF MANUFACTURES

## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Ind. code	Industry group and industry	1967										1966 <sup>r</sup>		1963		Standard error of change (percent) for columns <sup>1</sup> -	
		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	All employees	Value added by manufacture	All employees	Value added by manufacture		
		Number	Payroll	Number	Man-hours	Wages											
		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)	K	L
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)		
39	MISCELLANEOUS MANUFACTURING INDUSTRIES--Con.																
395	Pens, pencils, office, and art supplies.....	37	206	27	53	120	422	338	757	28	130	35	446	33	338	2	2
3951	Pens and mechanical pencils...	13	65	10	20	41	146	74	219	10	40	12	146	12	119	3	3
3952	Lead pencils and art goods....	9	45	7	13	27	88	84	170	5	37	8	81	7	65	1	2
3953	Marking devices.....	9	58	6	12	31	105	68	171	*8	21	9	129	8	86	5	7
3955	Carbon paper and inked ribbons	6	38	4	8	21	83	112	197	5	32	6	90	6	68	11	4
396	Costume jewelry and notions.	55	276	48	92	191	566	462	1,017	23	153	53	500	53	415	2	1
3961	Costume jewelry.....	24	119	21	42	82	233	200	426	3	49	22	187	22	151	3	3
3962	Artificial flowers.....	4	17	4	6	12	38	36	73	*(6)	11	4	37	5	29	8	6
3963	Buttons.....	4	23	4	7	15	39	27	66	*2	12	5	43	6	44	5	6
3964	Needles, pins, and fasteners..	23	117	19	37	82	256	199	452	18	81	22	233	20	191	2	1
399	Miscellaneous manufactures <sup>10</sup>	133	756	106	205	516	1,441	1,132	2,542	57	369	135	1,417	140	1,236	2	2
3991	Brooms and brushes <sup>10</sup> .....	16	88	12	24	57	187	184	375	13	76	17	195	17	168	2	4
3993	Signs and advertising displays <sup>10</sup> .....	49	310	41	77	208	540	388	897	19	98	48	496	43	407	3	4
3994	Morticians' goods <sup>10</sup> .....	16	92	13	26	60	173	147	318	3	55	17	182	17	158	2	6
3996	Hard surface floor coverings <sup>10</sup>	6	44	5	10	34	132	98	226	7	44	6	135	16	119	1	1
3999	Manufactures, n.e.c. <sup>10</sup> .....	46	222	35	68	157	409	315	726	*15	96	47	409	47	384	5	4
19	ORDNANCE AND ACCESSORIES <sup>2</sup> ...	377	3,388	213	432	1,476	5,044	3,767	8,757	201	1,171	300	3,973	246	2,882	1	1
1911	Guns, howitzers, and mortars <sup>2</sup> .	57	420	35	71	221	637	707	1,311	35	248	46	481	25	235	1	1
1999	Ordnance and accessories, n.e.c. <sup>2</sup> .....																
192	Ammunition, except for small arms <sup>2</sup> .....	267	2,569	134	275	971	3,748	2,349	6,130	141	565	207	2,908	182	2,211	1	1
1925	Complete guided missiles <sup>2</sup> .....	185	2,021	68	142	578	2,872	1,475	4,347	103	406	164	2,505	149	1,925	1	1
1929	Ammunition, except for small arms, n.e.c. <sup>2</sup> .....	82	548	66	133	393	876	874	1,783	38	159	43	403	33	286	1	1
1931	Tanks and tank components <sup>2</sup> ....	11	95	9	18	63	146	271	379	3	113	10	113	11	148	1	1
1941	Sighting and fire control equipment <sup>2</sup> .....	2	17	2	3	12	24	14	40	(6)	8	3	42	9	96	6	14
1951	Small arms <sup>2</sup> .....	18	124	14	28	82	237	141	368	10	90	15	197	10	88	3	1
1961	Small arms ammunition <sup>2</sup> .....	22	163	19	37	127	252	285	529	12	147	19	232	9	104	1	1

Note: The difference between value of shipments and payroll includes, in addition to profits, the cost of all materials used, supplements to wages, depreciation, interest, rent, as well as purchased services such as advertising, legal, accounting, maintenance and repair, and taxes.

The total value of shipments and cost of materials data for industry groups (2- and 3-digit) and a few individual industries (4-digit) include extensive and unmeasurable duplication arising from shipments between establishments in the same industry classification.

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, at the individual industry level these estimates may be of limited reliability. However, they may be combined with other industry totals into broader aggregates which are of acceptable reliability. The procedure for obtaining relative standard errors for industry combinations is discussed in the Introduction of the Annual Survey of Manufactures, 1964-1965.

n.e.c. Not elsewhere classified. <sup>r</sup>Revised. (X) Not applicable.

<sup>1</sup>The 1966 and 1967 statistics in this report were compiled in a sample survey. The results are, therefore, subject to sampling variation and will differ somewhat from the results of comparable complete canvass totals. The range of difference to be expected is measured by the standard error. The estimates will differ from complete canvass results by less than: (i) One standard error: Approximately 2 times out of 3; (ii) Two standard errors: Approximately 19 times out of 20; (iii) Three standard errors: Almost always. The percentage standard errors shown were computed for the 1966/1965 relatives. They will be approximately the same for the 1967/1966 relatives and for the other items. While standard errors are not shown directly for the estimated general statistics totals, they may be approximated as follows:

Using 1966 standard errors of relatives for the respective general statistics item from this report and the corresponding 1965 standard errors of the total from the 1965 report (1965 General Statistics for Industry Groups and Industries, M65(AS)-1), add the larger standard error to one-half of the smaller error (or the first number to one-half of the second number, if the two are equal). Repeat using the results from the first calculation together with the 1966 standard errors of relatives to approximate the standard errors of the 1967 totals.

<sup>2</sup>Includes data only for privately owned and/or operated establishments. Government owned and operated establishments are excluded.

<sup>3</sup>In addition to the employment and payroll reported for operating manufacturing establishments, manufacturing concerns reported separately for central administrative offices or auxiliary units which serve the manufacturing establishments of a company (e.g., storage warehouses, power plants, research laboratories, garages, repair shops, etc.), rather than the general public. Separate reports were obtained if these units were at different geographic locations from the establishments served or if they serviced more than one manufacturing establishment. The employment and payroll data shown represent the total for all such units which primarily serve manufacturing plants.

The 1967 figures are not completely comparable with those for 1966 and 1963. Beginning in 1967, a number of contractors for the Department of Defense and the National Aeronautics and Space Administration began to report activities relating to the assembly, launching and testing of missiles, rockets, and space vehicles as operating manufacturing locations. In 1966 and prior years, these activities typically were reported as auxiliary to manufacturing.

Footnotes continued on next page.



## 1967 CENSUS OF MANUFACTURES

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## General Statistics for Industry Groups and Industries: 1967, 1966, and 1963

(See appendix for explanation of column captions)

## FOOTNOTES--CONTINUED

<sup>4</sup>Establishments in this industry reported value of production instead of value of shipments. Consequently, the formula for computing value added by manufacture was modified to exclude any change in finished products inventories between the beginning and end of the year.

<sup>5</sup>The totals for some industries have been withheld to permit additional checking of figures. However, data for these industries are included in all higher summary totals such as industry group totals and the "all industries" total. After further review, statistics for these industries will be published in the 1967 Census preliminary and final industry reports.

<sup>6</sup>Less than \$1 million.

<sup>7</sup>Data for 1967 for industries 3461 "Metal Stampings" and 3717 "Motor vehicles and parts" are not directly comparable with data for 1966 and prior years.

<sup>8</sup>Value added by manufacture data for 1963 for industry 3571 "computing and related machines" are not comparable with data for subsequent years.

<sup>9</sup>Establishments in this industry reported value of work done instead of value of shipments. Consequently, the formula for computing value added by manufacture was not adjusted for any inventory change between the beginning and end of the year. It does include value added by resales.

<sup>10</sup>Industry group 399, "Miscellaneous manufactures," was previously identified as industry groups 398 and 399. The comparability of 1967 industry codes with those used in 1966 and prior years is as follows:

1967 SIC	Prior year SIC	1967 SIC	Prior year SIC
3991.....	3981		
3993.....	3993		
3994.....	3988		
3996.....	3982	3999.....	{ 3983 3984 3987 3992 3995 3999

# Appendix

## EXPLANATION OF TERMS

**All Employees--** The category "all employees" comprises all full-time and part-time employees on the payrolls of operating manufacturing establishments who worked or received pay for any part of the pay period including the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are, however, excluded from the total.

**Production and Related Workers--** Workers (up through the working foreman level) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, watchman services, product development, auxiliary production for plants' own use (e.g., power plant) recordkeeping, and other services closely associated with these production operations at the establishment covered by the report are included. Supervisory employees above the working foreman level are excluded from this category.

**All Other Employees--** Represents nonproduction personnel of the manufacturing establishment, including those engaged in the following activities: Factory supervision above the working foreman level, sales (including driver salesmen), sales delivery (highway truck drivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria, medical, etc.), professional, and technical. Also included are employees on the payroll of the manufacturing establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force.

**Central Administrative Office and Auxiliary Unit Employees--** Respondents were asked to file separate reports for any central administrative offices or auxiliary units at a different location from the establishments served or at the same location as one of these establishments but not

operated as an integral part thereof and administering and serving two or more establishments. The functions of employees in central administrative offices include general company policy determination, planning and management (i.e., company purchasing, accounting, general engineering, direction of company personnel matters, and legal and patent matters). Auxiliaries are storage facilities, garages, repair shops, purchasing offices, sales promotion offices, and research laboratories serving the plants or central management of the company.

The employment and payroll data shown for central administrative offices and auxiliary units represent the total for all such units which primarily serve manufacturing plants.

**Average Employment--** The annual survey report forms requested employment figures for "production and related workers" for four selected pay periods (i.e., production workers' during pay period including the 12th of March, May, August, and November). For "all other employees" only a March 12th figure was requested. Thus the "annual average" is composed of an average of the four monthly figures for the "production workers" plus the March figure for "all other employees."

**Payrolls--** This total includes the gross earnings paid in the calendar year to all employees on the payroll of operating manufacturing establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick-leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Also excluded are payments to members of Armed Forces and pensioners carried on the active payrolls of manufacturing establishments.

**Production and Related Worker Man-Hours--** This total consists of all plant man-hours of production and related workers as defined above. It represents all man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave, when the employee was not at the plant. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.



**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as materials by others. Consequently, it is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Cost of Materials--**The term, "cost of materials," refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. Manufacturers included the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

To arrive at the industry total cost of materials, separate figures were obtained for (a) the total delivered cost of all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during that year; (b) the amount paid for electric energy purchased; (c) the amount paid for all fuels consumed for heat, power, or the generation of electricity; (d) the cost of work done by others on materials or parts furnished by manufacturing establishments (contract work); (e) cost of products bought and resold in the same condition. The total excludes the cost of services used, such as advertising, insurance, telephone, etc., and research, developmental, and consulting services of other establishments; it also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc.; it excludes materials, machinery and equipment used in plant expansion or capitalized repairs which are chargeable to fixed assets accounts.

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant, after discounts and allowances, and excluding freight charges and excise taxes. However, where the products of an industry are customarily delivered by the manufacturing establishments (bakery products, fluid milk, and soft drinks, for example), the value of shipments is based on the delivered price of the goods rather than the f.o.b. plant price.

Under the general heading of shipments, manufacturers were asked to include all items made by or for each establishment from materials owned by it, whether sold, transferred to other plants of the same company, or shipped on consignment. Also included were receipts for contract work and for such miscellaneous activities as sale of scrap and refuse, installation work by manufacturing plant employees, research and development work, and repair work. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials. The value of products bought and resold without further processing (merchandising) was reported separately and is included in the value of shipments totals for each industry. The inclusion of resales in total value of shipments is a change in procedure initiated with the 1958 Census of Manufactures.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company (i.e., other manufacturing plants, separate sales branches, or retail stores) as though the establishments were a separate economic unit. The company was requested to include in "value of interplant transfers within the company" not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

For a relatively few industries (canning and preserving, other than meats, and apparel) where shipment figures are generally not maintained, the "value of production" was requested. These instances are noted in the tables for the industries involved.

**Duplication in Cost of Materials and Value of Products--**The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the



products of some industries are used as materials by others. With some important exceptions, such as motor vehicles and parts, this duplication is not significant within individual industries but arises from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication—the value of finished manufactures—tends to approximate two-thirds of the total value of products reported in the annual survey.

In the past, the Bureau of the Census has not published figures for cost of materials or value of shipments if they contained significant duplication, even if they could be derived at the industry group level by adding the 4-digit industry detail. Effective with the 1962 annual survey, these figures were shown at all industry levels for the United States to meet the requests for their use in studies in which the presence of an indeterminate amount of duplication is not a limiting factor. However, they are appropriately footnoted. Effective with the 1964 annual survey, these industry group totals are also shown at the State, standard metropolitan statistical area, and large county level.

Even where no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing

industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs to value of shipments, both among industries and within the same industry.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report capital expenditures for (a) permanent additions and major alterations to manufacturing establishments and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and organizations. Expenditures for used plant and equipment, expenditures for land, and costs of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.) the definition of the value of inventories aggregate for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance.





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**OFFICIAL BUSINESS**



# 1967 CENSUS OF MANUFACTURES

Series MC67(P)-1



SUMMARY SERIES

**preliminary  
report**

## General Statistics for Industry Groups and Industries

### CHANGE SHEET

The following revisions in 1967 data should be made for the specified items, as published in 1967 Census of Manufactures Summary Series MC67(P)-1, General Statistics for Industry Groups and Industries, issued in April 1969.

Code	Data item, industry group, and industry	As published	As revised
	All employees, number (1,000):		
--	All industries, total.....	19,388	19,398
	Administrative and auxiliary.....	818	828
	All employees, payroll (million dollars):		
	All industries, total.....	131,703	131,876
2341	Women's and children's underwear.....	29	285
2342	Corsets and allied garments.....	148	118
--	Administrative and auxiliary.....	8,673	8,620
	Value of shipments (million dollars):		
	All industries, total.....	554,564	555,863
2052	Cookies and crackers.....	137	1,367
3171	Women's handbags and purses.....	30	299
3275	Gypsum products.....	583	383
	Capital expenditures, new (million dollars):		
	All industries, total.....	20,268	20,231
205	Bakery products.....	192	155

The above corrections affect not only the codes listed but also the broader 2- and 3-digit aggregates in which they are included. For example, the value of shipments correction for industry 2052 also affect the 3-digit total for 205 and the 2-digit total for 20.

June 1969



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director





# 1967 CENSUS OF MANUFACTURES

SUMMARY SERIES

## General Statistics for Geographic Divisions and States

preliminary  
report

This report presents preliminary results from the 1967 Census of Manufactures for geographic divisions and States. The data are based on the sample for the Annual Survey of Manufactures which was conducted as an integral part of the Census of Manufactures. During all phases of the processing of the Census, the establishments comprising the Annual Survey sample were separately identified and processed.

The tables in this preliminary summary report provide data on employment, man-hours, payrolls, value added by manufacture, capital expenditures, cost of materials, and value of products shipped (comprising "general statistics") for manufacturing industries. Establishments are classified in manufacturing industries in accordance with industry definitions described in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

The subsequent preliminary reports of the 1967 Census of Manufactures for individual States will be based on data from the Census of Manufactures universe and will provide data by industry groups for the State and large standard metropolitan statistical areas and "all manufacturing" totals for counties. General statistics for the State based on both the Census and the Annual Survey of Manufactures will be shown for 1967.

Since the figures shown in this report have been subjected only to a preliminary review, they must be regarded as approximations of the final census figures. No adjustments in the dollar figures have been made for changes in price or wage levels from the comparison years.

The estimates for 1967 are based on reports from about 65,000 manufacturing establishments selected in a probability sample out of a total of about 310,000 manufacturing establishments. Included in the sample are all large manufacturing plants, which account for more than two-thirds of total employment of all manufacturing establishments in the United States. The sample also includes varying proportions of the more numerous medium- and small-sized establishments. The estimates obtained from this sample vary from the totals that would have been obtained from a complete canvass of all manufacturing establishments. The relative magnitude of the sampling variation of 1966/1965 relatives is indicated in the table column captioned "Standard error of change." It is believed that the standard errors for the 1967/1966 relatives are approximately the same as those shown for 1966. For a complete description of the annual survey of manufactures and the sampling procedure used, see the introduction to the *Annual Survey of Manufactures 1964-1965*.

The census of manufactures is the 28th such census for the United States since the first census was conducted in 1809. Since World War II, it has been scheduled as a 5-year program. However for a variety of reasons, the actual censuses were conducted for 1947, 1954, 1958, and 1963. In recent years the census of manufactures has been conducted as part of the economic census program which also includes censuses of mineral industries, business, and transportation.

An explanation of the data items included in this report appears in the appendix.

Issued May 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 25 cents



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director

## 1967 CENSUS OF MANUFACTURES

TABLE 1. General Statistics for the United States: 1958 to 1967

(See appendix for explanation of column captions)

Year	All employees <sup>1</sup>		Production workers			Value added by manufacture (million dollars) (F)	Cost of materials (million dollars) (G)	Value of shipments (million dollars) (H)	Capital expenditures, new (million dollars) (I)	Standard error of change (percent) for columns <sup>2</sup> —	
	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)					A	F
	(A)	(B)	(C)	(D)	(E)						
1967 <sup>3</sup> .....	19,398	131,876	13,975	27,925	81,025	259,301	298,371	555,863	20,231	(X)	(X)
1966.....	19,028	125,350	13,826	28,102	78,256	250,846	293,664	538,737	20,236	1	1
1965.....	18,012	113,986	13,076	26,568	71,361	226,940	268,386	492,006	16,615	1	1
1964.....	17,268	106,048	12,403	25,245	65,839	206,194	244,080	447,985	13,262	1	1
1963.....	16,967	99,904	12,232	24,509	62,094	192,102	229,684	420,528	11,371	(X)	(X)
1958.....	16,025	78,326	11,666	22,672	49,575	141,500	(X)	(X)	9,096	(X)	(X)

Note: The difference between value of shipments and payroll includes, in addition to profits, the cost of all materials used, supplements to wages, depreciation, interest, rent, as well as purchased services such as advertising, legal, accounting, maintenance and repair, and taxes.

<sup>1</sup>Revised. (X) Not applicable.

<sup>2</sup>In addition to the employment and payroll reported for operating manufacturing establishments, manufacturing concerns reported separately for central administrative offices or auxiliary units which serve the manufacturing establishments of a company (e.g., storage warehouses, power plants, research laboratories, garages, repair shops, etc.), rather than the general public. Separate reports were obtained if these units were at different geographic locations from the establishments served or if they serviced more than one manufacturing establishment. The employment and payroll data shown represent the total for all such units which primarily serve manufacturing plants.

The 1967 figures are not completely comparable with those for 1966 and 1963. Beginning in 1967, a number of contractors for the Department of Defense and the National Aeronautics and Space Administration began to report activities relating to the assembly, launching and testing of missiles, rockets, and space vehicles as operating manufacturing locations. In 1966 and prior years, these activities typically were reported as auxiliary to manufacturing.

<sup>3</sup>The 1966 and 1967 statistics in this report were compiled in a sample survey. The results are, therefore, subject to sampling variation and will differ somewhat from the results of comparable complete-censuses totals. The range of difference to be expected is measured by the standard error. The estimates will differ from complete census results by less than (a) one standard error—approximately 2 times out of 3; (b) two standard errors—approximately 19 times out of 20; (c) three standard errors—almost always. The percentage standard errors shown were computed for the 1966/1965 relatives. They will be approximately the same for the 1967/1966 relatives and for the other items. While standard errors are not shown directly for the estimated general statistics totals, they may be approximated as follows:

Using 1966 standard errors of relatives for the respective general statistics item from this report and the corresponding 1965 standard errors of the total from the 1965 report (1965 Statistics for States, Standard Metropolitan Statistical Areas, and Large Industrial Counties,

M65(AS)-7.1 through 7.9), add the larger standard error to one-half of the smaller error (or the first number to one-half or the second number, if the two are equal). Repeat using the results from the first calculation together with the 1966 standard errors of relatives to approximate the standard errors of the 1967 totals.

<sup>3</sup>The following are a list of data corrections uncovered since the release of the "General Statistics for Industry Groups and Industries" publication (MC67(P)-1) and included in this geographic publication:

Code	Data items	As published	As revised
--	All employees, number (1,000):		
	All industries, total.....	19,388	19,398
2341	Administrative and auxiliary.....	818	828
	All employees, payroll (million dollars):		
2342	All industries, total.....	131,703	131,876
	Women's and children's underwear.....	29	285
--	Corsets and allied garments.....	148	118
	Administrative and auxiliary.....	8,673	8,620
2052	Value of shipments (million dollars):		
	All industries, total.....	554,564	555,863
	Cookies and crackers.....	137	1,367
	Women's handbags and purses.....	30	299
3275	Gypsum products.....	583	383
	Capital expenditures, new (million dollars):		
205	All industries, total.....	20,268	20,231
	Bakery products.....	192	155

The above corrections affect not only the codes listed but also the broader 2- and 3-digit aggregates in which they are included. For example, the value of shipments correction for industry 2052 also affects the 3-digit total for 205 and the 2-digit total for 20.



## 1967 CENSUS OF MANUFACTURES

3

TABLE 2. General Statistics for Divisions and States: 1967, 1966, and 1963

(See appendix for explanation of column captions)

Divisions and States	1967									1966		1963		Standard error of change (percent) for columns <sup>2</sup>	
	All employees <sup>1</sup>		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture	All employees	Value added by manufacture		
	Number	Payroll	Number	Man-hours	Wages										
	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	(1,000)	(million dollars)		
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	J	K	
UNITED STATES TOTAL <sup>3</sup> .....	19,398	131,876	13,975	27,925	81,025	259,301	298,371	555,863	20,231	19,028	250,846	16,967	192,102	1	1
New England.....	1,567	10,165	1,137	2,279	6,236	18,940	16,494	35,295	1,150	1,546	18,278	1,425	13,581	1	1
Maine.....	107	558	89	169	417	1,021	1,117	2,127	131	107	980	100	786	1	1
New Hampshire.....	97	529	78	155	374	936	843	1,770	64	96	866	84	636	1	1
Vermont.....	42	255	31	64	159	486	628	1,101	29	42	514	34	309	1	1
Massachusetts.....	713	4,611	506	1,001	2,721	8,630	7,394	15,983	439	705	8,378	674	6,404	1	1
Rhode Island.....	125	706	98	195	473	1,357	1,236	2,577	69	127	1,355	114	959	1	1
Connecticut.....	483	3,506	335	695	2,092	6,510	5,276	11,737	418	469	6,185	419	4,487	1	1
Middle Atlantic.....	4,430	30,772	3,062	6,003	17,422	56,604	57,151	113,774	3,645	4,369	55,423	4,077	43,550	1	1
New York.....	1,967	13,927	1,307	2,558	7,286	25,171	24,537	49,545	1,244	1,936	24,425	1,854	19,550	1	1
New Jersey.....	894	6,368	609	1,214	3,600	12,569	12,868	25,411	785	878	12,246	829	9,957	1	1
Pennsylvania.....	1,569	10,477	1,146	2,231	6,536	18,864	19,746	38,818	1,616	1,555	18,752	1,394	14,043	1	1
East North Central.....	5,237	38,996	3,783	7,625	24,997	74,915	86,705	161,184	5,830	5,189	74,431	4,484	56,348	1	1
Ohio.....	1,433	10,734	1,023	2,074	6,914	20,440	22,043	42,314	1,581	1,412	19,998	1,240	15,516	1	1
Indiana.....	711	4,988	543	1,075	3,419	10,071	11,781	21,809	1,035	707	10,117	610	7,727	1	1
Illinois.....	1,420	10,098	1,010	2,011	6,223	20,045	21,867	41,843	1,433	1,408	19,855	1,211	14,652	1	1
Michigan.....	1,154	9,513	827	1,695	6,064	17,297	22,241	39,407	1,309	1,147	17,629	961	13,090	1	1
Wisconsin.....	519	3,663	380	770	2,377	7,062	8,773	15,811	472	515	6,832	462	5,363	1	1
West North Central.....	1,203	7,986	848	1,705	4,983	16,290	25,054	41,071	1,003	1,166	15,879	1,014	11,810	1	1
Minnesota.....	295	1,977	195	391	1,148	3,902	5,228	9,039	210	281	3,824	246	2,806	1	1
Iowa.....	213	1,443	154	311	953	3,227	5,562	8,714	244	206	3,031	178	2,287	1	1
Missouri.....	458	3,066	324	644	1,869	5,723	8,009	13,689	303	451	5,808	391	4,296	1	1
North Dakota.....	8	45	6	11	27	117	269	383	7	7	101	7	72	1	3
South Dakota.....	15	90	11	22	62	172	548	714	5	14	166	13	140	3	3
Nebraska.....	79	482	59	122	328	1,138	2,311	3,429	75	71	993	65	747	1	1
Kansas.....	135	883	99	204	596	2,011	3,127	5,103	159	136	1,956	114	1,462	1	1
South Atlantic.....	2,475	13,716	1,926	3,870	9,018	29,157	35,111	63,964	2,589	2,416	27,552	2,126	21,145	1	1
Delaware.....	68	573	35	70	216	906	1,522	2,437	96	68	956	58	658	2	1
Maryland.....	291	1,951	211	418	1,210	3,766	4,382	8,161	237	289	3,588	264	3,012	1	1
District of Columbia.....	24	182	12	22	79	326	269	591	14	24	303	22	257	2	3
Virginia.....	339	1,877	267	537	1,273	4,042	4,611	8,605	354	336	3,938	302	3,046	1	1
West Virginia.....	124	819	97	191	580	2,186	1,876	4,031	253	125	2,147	117	1,886	1	1
North Carolina.....	627	2,946	524	1,047	2,138	6,377	8,456	14,798	580	612	6,133	531	4,567	1	1
South Carolina.....	299	1,462	249	517	1,086	3,035	3,487	6,456	393	298	2,980	263	2,114	1	1
Georgia.....	424	2,179	341	686	1,498	5,034	6,940	11,876	397	415	4,569	354	3,251	1	1
Florida.....	279	1,727	190	382	938	3,485	3,568	7,009	265	249	2,938	215	2,354	1	1
East South Central.....	1,092	5,920	871	1,720	4,098	13,812	16,001	29,644	1,424	1,076	13,226	892	9,387	1	1
Kentucky.....	224	1,341	175	346	916	3,673	4,181	7,843	319	218	3,466	180	2,549	1	1
Tennessee.....	419	2,242	329	646	1,494	4,822	5,858	10,670	392	406	4,628	339	3,303	1	1
Alabama.....	292	1,611	236	466	1,158	3,661	3,898	7,549	387	294	3,644	244	2,518	1	1
Mississippi.....	157	726	131	262	530	1,656	2,064	3,582	326	158	1,488	129	1,017	1	1
West South Central.....	1,064	6,658	768	1,574	4,123	16,431	24,397	40,620	2,134	1,006	14,908	866	10,831	1	1
Arkansas.....	143	647	120	240	483	1,568	2,296	3,827	188	136	1,410	114	961	1	1
Louisiana.....	158	1,017	117	241	666	2,728	4,442	7,148	573	152	2,531	140	1,916	1	1
Oklahoma.....	112	725	73	145	395	1,274	1,939	3,203	104	110	1,242	98	979	1	1
Texas.....	651	4,269	458	948	2,579	10,861	15,720	26,442	1,269	608	9,725	514	6,975	1	1
Mountain.....	310	2,075	215	427	1,270	4,336	5,608	9,972	405	308	4,236	284	3,472	1	1
Montana.....	21	133	16	31	92	315	670	977	64	22	304	20	236	2	2
Idaho.....	36	214	28	54	152	505	701	1,209	46	35	494	30	366	2	1
Wyoming.....	7	40	5	9	25	96	197	295	13	7	93	7	82	1	1
Colorado.....	104	716	71	144	439	1,457	1,683	3,150	92	104	1,458	94	1,194	1	1
New Mexico.....	17	96	11	23	53	171	304	474	12	16	148	15	150	4	3
Arizona.....	73	523	49	96	299	919	1,005	1,960	109	71	926	57	627	2	1
Utah.....	45	306	31	62	182	750	931	1,665	55	47	699	54	711	1	1
Nevada.....	7	47	4	8	28	123	117	242	14	6	114	7	106	9	4
Pacific.....	2,020	15,588	1,365	2,722	8,878	28,816	31,850	60,339	2,051	1,952	26,913	1,799	21,978	1	1
Washington.....	247	1,901	171	332	1,139	3,276	4,456	7,849	352	252	3,289	224	2,885	1	1
Oregon.....	160	1,043	127	248	777	1,961	2,470	4,451	201	161	1,992	145	1,575	1	1
California.....	1,579	12,448	1,041	2,092	6,828	23,123	24,393	47,053	1,466	1,507	21,190	1,399	17,172	1	1
Alaska.....	8	57	6	13	47	126	138	265	11	7	131	6	85	4	5
Hawaii.....	26	139	20	37	87	330	393	721	21	25	311	25	261	1	1

Note: See table 1 for notes and footnotes.

# Appendix

## EXPLANATION OF TERMS

**All Employees--** The category "all employees" comprises all full-time and part-time employees on the payrolls of operating manufacturing establishments who worked or received pay for any part of the pay period including the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are, however, excluded from the total.

**Production and Related Workers--** Workers (up through the working foreman level) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, watchman services, product development, auxiliary production for plants' own use (e.g., power plant) recordkeeping, and other services closely associated with these production operations at the establishment covered by the report are included. Supervisory employees above the working foreman level are excluded from this category.

**All Other Employees--** Represents nonproduction personnel of the manufacturing establishment, including those engaged in the following activities: Factory supervision above the working foreman level, sales (including driver salesmen), sales delivery (highway truck drivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria, medical, etc.), professional, and technical. Also included are employees on the payroll of the manufacturing establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force.

**Central Administrative Office and Auxiliary Unit Employees--** Respondents were asked to file separate reports for any central administrative offices or auxiliary units at a different location from the establishments served or at the same location as one of these establishments but not

operated as an integral part thereof and administering and serving two or more establishments. The functions of employees in central administrative offices include general company policy determination, planning and management (i.e., company purchasing, accounting, general engineering, direction of company personnel matters, and legal and patent matters). Auxiliaries are storage facilities, garages, repair shops, purchasing offices, sales promotion offices, and research laboratories serving the plants or central management of the company.

The employment and payroll data shown for central administrative offices and auxiliary units represent the total for all such units which primarily serve manufacturing plants.

**Average Employment--** The annual survey report forms requested employment figures for "production and related workers" for four selected pay periods (i.e., production workers' during pay period including the 12th of March, May, August, and November). For "all other employees" only a March 12th figure was requested. Thus the "annual average" is composed of an average of the four monthly figures for the "production workers" plus the March figure for "all other employees."

**Payrolls--** This total includes the gross earnings paid in the calendar year to all employees on the payroll of operating manufacturing establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick-leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Also excluded are payments to members of Armed Forces and pensioners carried on the active payrolls of manufacturing establishments.

**Production and Related Worker Man-Hours--** This total consists of all plant man-hours of production and related workers as defined above. It represents all man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave, when the employee was not at the plant. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.



**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as materials by others. Consequently, it is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Cost of Materials--**The term, "cost of materials," refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. Manufacturers included the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

To arrive at the industry total cost of materials, separate figures were obtained for (a) the total delivered cost of all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during that year; (b) the amount paid for electric energy purchased; (c) the amount paid for all fuels consumed for heat, power, or the generation of electricity; (d) the cost of work done by others on materials or parts furnished by manufacturing establishments (contract work); (e) cost of products bought and resold in the same condition. The total excludes the cost of services used, such as advertising, insurance, telephone, etc., and research, developmental, and consulting services of other establishments; it also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc.; it excludes materials, machinery and equipment used in plant expansion or capitalized repairs which are chargeable to fixed assets accounts.

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant, after discounts and allowances, and excluding freight charges and excise taxes. However, where the products of an industry are customarily delivered by the manufacturing establishments (bakery products, fluid milk, and soft drinks, for example), the value of shipments is based on the delivered price of the goods rather than the f.o.b. plant price.

Under the general heading of shipments, manufacturers were asked to include all items made by or for each establishment from materials owned by it, whether sold, transferred to other plants of the same company, or shipped on consignment. Also included were receipts for contract work and for such miscellaneous activities as sale of scrap and refuse, installation work by manufacturing plant employees, research and development work, and repair work. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials. The value of products bought and resold without further processing (merchandising) was reported separately and is included in the value of shipments totals for each industry. The inclusion of resales in total value of shipments is a change in procedure initiated with the 1958 Census of Manufactures.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company (i.e., other manufacturing plants, separate sales branches, or retail stores) as though the establishments were a separate economic unit. The company was requested to include in "value of interplant transfers within the company" not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

For a relatively few industries (canning and preserving, other than meats, and apparel) where shipment figures are generally not maintained, the "value of production" was requested. These instances are noted in the tables for the industries involved.

**Duplication in Cost of Materials and Value of Products--**The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the



products of some industries are used as materials by others. With some important exceptions, such as motor vehicles and parts, this duplication is not significant within individual industries but arises from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication—the value of finished manufactures—tends to approximate two-thirds of the total value of products reported in the annual survey.

In the past, the Bureau of the Census has not published figures for cost of materials or value of shipments if they contained significant duplication, even if they could be derived at the industry group level by adding the 4-digit industry detail. Effective with the 1962 annual survey, these figures were shown at all industry levels for the United States to meet the requests for their use in studies in which the presence of an indeterminate amount of duplication is not a limiting factor. However, they are appropriately footnoted. Effective with the 1964 annual survey, these industry group totals are also shown at the State, standard metropolitan statistical area, and large county level.

Even where no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs to value of shipments, both among industries and within the same industry.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report capital expenditures for (a) permanent additions and major alterations to manufacturing establishments and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and organizations. Expenditures for used plant and equipment, expenditures for land, and costs of maintenance and repairs charged as current operating expense are also omitted.

#### 1967 CENSUS OF MANUFACTURES PRELIMINARY REPORTS

**Industry Series:** (About 425 reports, Series MC67(P)-19A to 39E). A separate report for each of about 425 manufacturing industries provides industry totals for general statistics for the United States and for regions and States. Comparable historical data are also included. Tables present U.S. totals for quantity and value of shipments of the products classified in the industry and quantity and cost of materials consumed by establishments in the industry.

**Area Series:** (51 reports, Series MC67(P)-S1 to S51). A separate report for each State and the District of Columbia presents general statistics for the State and for the larger standard metropolitan statistical areas within the State by 2-digit and selected 3-digit industries; "all manufacturing" totals (no industry detail) are shown for most individual counties.





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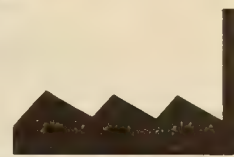
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# 1967 CENSUS OF MANUFACTURES



Series MC67(P)-3

## SUMMARY SERIES

**preliminary  
report**

## General Statistics for Industry Groups and Industries (Recapitulation of preliminary industry reports)

**Introduction--**This report from the 1967 Census of Manufactures presents a summary of the general statistics data for industry groups and industries. The information has been extracted from a series of 422 preliminary industry reports, issued as a part of the 1967 census program.

These data are based on the census of manufactures universe. They therefore differ from the information published in the preliminary summary report, "General Statistics for Industry Groups and Industries," MC67(P)-1 issued in April 1969 which was based on information supplied by a sample of approximately 65,000 manufacturing establishments included in the annual survey of manufactures reporting panel.

The table provides data on employment, man-hours, payrolls, value added by manufacture, capital expenditures, cost of materials, inventories, and value of products shipped for manufacturing industries. Data are included for all industries and industry groups with comparative data from the 1963 Census of Manufactures.

The figures shown in this report have been subjected to a preliminary review and may be revised in the final report which will be prepared for each industry. The dollar figures shown have not been adjusted for changes in price level.

**Industry Classification--**In the census of manufactures, information is collected from each manufacturing establishment engaged in the mechanical or chemical transformation of materials into new products. A manufacturing establishment usually consists of a single physical location where such industrial operations are

performed; for example, a factory, mill, or plant. Each establishment is classified in a particular industry according to the Standard Industrial Classification (SIC) system on the basis of the value of the principal products it produces. As the general statistics (employment, payroll, cost of materials, value of shipments, etc.) are reported for each establishment as a whole, the aggregates of such figures for an industry reflect not only the primary production activities of the establishments classified in that industry, but also their manufacture of secondary products and receipts for their other activities (contract work on materials owned by others, repair work, etc.). (See appendix item "Value of shipments." See, also, section of the text on scope and coverage.) The extent to which plants classified in an industry "specialize" in making products regarded as primary to that industry is shown in the individual report for each industry group.

The Standard Industrial Classification system combines the 422 individual industries into 150 industry groups which are, in turn, combined into 21 major industry groups. Each individual industry is designated by a 4-digit code, each industry group by a 3-digit code identical with the first three digits of its component industries, and each major industry group by a 2-digit code identical with the first two digits of its component 3-digit industry groups.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification Manual.

An explanation of the data items included in this report appears in the appendix.

Issued February 1970

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS



## General Statistics for Industry Groups and Industries: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
	ALL INDUSTRIES, TOTAL.....	311,125	107,138	19,339.2	132,241.2	13,974.4	27,866.6	81,485.1
20	Food and kindred products.....	32,585	13,568	1,653.9	10,109.1	1,124.5	2,268.9	6,080.5
21	Tobacco manufactures.....	329	195	74.9	375.0	65.9	125.1	302.8
22	Textile mill products.....	7,056	4,430	926.3	4,382.5	826.6	1,686.5	3,549.0
23	Apparel and other textile products.....	26,385	12,688	1,357.1	5,580.4	1,200.9	2,181.4	4,342.3
24	Lumber and wood products.....	36,849	5,826	556.1	2,806.3	497.6	981.4	2,295.1
25	Furniture and fixtures.....	10,010	3,447	424.9	2,258.8	357.3	715.0	1,653.5
26	Paper and allied products.....	5,903	3,818	638.1	4,428.2	506.8	1,070.2	3,197.2
27	Printing and publishing.....	38,001	8,037	1,024.6	7,111.9	629.1	1,192.7	4,009.9
28	Chemicals and allied products.....	11,805	4,348	849.2	6,508.2	547.3	1,096.9	3,593.0
29	Petroleum and coal products.....	1,886	706	141.7	1,216.2	99.3	202.0	786.2
30	Rubber and plastics products, n.e.c.....	6,458	3,119	518.4	3,297.3	411.5	818.3	2,321.7
31	Leather and leather products.....	3,695	1,973	329.9	1,459.8	294.0	550.6	1,148.0
32	Stone, clay, and glass products.....	15,602	4,921	591.4	3,838.3	470.6	949.9	2,792.5
33	Primary metal industries.....	6,821	4,072	1,279.3	9,846.8	1,041.5	2,083.2	7,459.5
34	Fabricated metal products.....	27,413	10,738	1,340.5	9,310.4	1,056.9	2,150.5	6,536.0
35	Machinery, except electrical.....	37,743	10,571	1,857.9	14,173.7	1,344.5	2,777.3	9,200.5
36	Electrical equipment and supplies.....	10,753	5,612	1,897.1	13,129.0	1,338.5	2,643.8	7,683.6
37	Transportation equipment.....	7,439	3,325	1,824.3	15,061.9	1,330.6	2,731.7	9,858.8
38	Instruments and related products.....	4,449	1,611	391.7	2,802.6	264.2	525.1	1,557.8
39	Miscellaneous manufacturing industries.....	14,049	3,843	422.1	2,280.3	343.7	660.2	1,544.8
19	Ordnance and accessories <sup>3</sup> .....	424	290	410.3	3,628.6	223.1	455.9	1,572.4
--	Administrative and auxiliary <sup>4</sup> .....	5,470	(NA)	829.5	8,635.9	(X)	(X)	(X)
20	FOOD AND KINDRED PRODUCTS.....	32,585	13,568	1,653.9	10,109.1	1,124.5	2,268.9	6,080.5
201	Meat products.....	4,921	2,039	309.9	1,955.1	248.2	506.7	1,435.4
2011	Meatpacking plants.....	<sup>5</sup> 2,707	966	172.1	1,265.8	131.9	276.6	926.9
2013	Sausages and other prepared meats.....	1,375	562	54.4	378.9	40.3	83.8	250.8
2015	Poultry dressing plants.....	839	511	83.4	310.4	76.0	146.3	257.7
202	Dairy products.....	6,207	2,517	232.7	1,453.6	107.9	226.8	607.0
2021	Creamery butter.....	<sup>5</sup> 546	141	9.0	47.0	6.7	14.5	32.7
2022	Cheese, natural and processed.....	1,031	239	20.1	103.8	16.6	33.9	80.1
2023	Condensed and evaporated milk.....	291	168	12.8	80.6	9.9	20.7	59.4
2024	Ice cream and frozen desserts.....	<sup>5</sup> 851	327	24.7	156.8	13.8	27.2	77.3
2026	Fluid milk.....	3,488	1,642	166.1	1,065.4	60.9	130.5	357.5
203	Canned, cured, and frozen foods.....	3,538	1,852	261.7	1,242.4	228.1	439.1	958.1
2031	Canned and cured seafoods.....	<sup>5</sup> 319	160	15.6	68.4	13.9	23.3	54.1
2032	Canned specialties.....	176	84	27.3	157.6	22.4	45.1	115.3
2033	Canned fruits and vegetables.....	1,228	737	101.0	480.2	89.7	175.5	379.3
2034	Dehydrated food products.....	179	81	11.2	59.3	9.7	18.5	45.9
2035	Pickles, sauces, and salad dressings.....	<sup>5</sup> 527	183	19.5	97.8	15.9	31.4	69.5
2036	Fresh or frozen packaged fish.....	<sup>5</sup> 499	242	21.5	77.4	19.4	32.9	60.1
2037	Frozen fruits and vegetables.....	610	365	65.6	301.7	57.1	112.4	233.9
204	Grain mill products.....	3,211	1,091	111.6	759.4	77.7	167.8	481.0
2041	Flour and other grain mill products.....	<sup>5</sup> 541	212	20.3	142.3	14.7	33.0	95.1
2042	Prepared feeds for animals and fowls.....	<sup>5</sup> 2,364	726	53.2	326.9	34.4	75.4	187.8
2043	Cereal preparations.....	46	29	12.7	98.0	10.5	21.1	75.1
2044	Rice milling.....	68	46	4.2	24.4	3.2	7.2	15.1
2045	Blended and prepared flour <sup>7</sup> .....	<sup>5</sup> 147	55	7.1	51.6	5.1	10.7	32.7
2046	Wet corn milling.....	45	23	14.1	116.2	9.8	20.4	75.2
205	Bakery products.....	4,399	1,817	264.7	1,667.3	159.7	320.3	892.8
2051	Bread, cake, and related products.....	4,049	1,616	221.6	1,412.7	125.0	251.7	709.4
2052	Cookies and crackers.....	350	201	43.1	254.6	34.7	68.6	183.4
206	Sugar.....	183	162	30.9	209.6	25.0	53.5	160.9
2061	Raw cane sugar.....	<sup>5</sup> 83	74	7.9	48.5	6.2	14.5	35.4
2062	Cane sugar refining.....	<sup>5</sup> 34	27	11.5	92.7	8.7	18.7	69.2
2063	Beet sugar.....	66	61	11.5	68.4	10.1	20.3	56.3
207	Confectionery and related products.....	1,242	464	83.2	434.5	68.8	132.5	312.9
2071	Confectionery products.....	1,185	425	68.0	339.0	57.2	109.4	246.5
2072	Chocolate and cocoa products.....	34	23	8.4	53.9	6.6	13.4	39.2
2073	Chewing gum.....	23	16	6.8	41.6	5.0	9.7	27.2
208	Beverages.....	4,384	2,152	222.0	1,534.8	114.3	228.4	731.1
2082	Malt liquors.....	188	153	60.5	527.2	40.6	78.1	336.6
2083	Malt.....	43	30	2.0	17.1	1.5	3.1	12.7
2084	Wines, brandy, and brandy spirits.....	205	68	6.6	46.4	4.2	8.4	24.4
2085	Distilled liquor, except brandy.....	112	95	19.4	141.7	15.5	31.8	104.0
2086	Bottled and canned soft drinks.....	3,403	1,694	123.4	727.1	46.7	95.3	219.2
2087	Flavoring extracts and sirups, n.e.c.....	<sup>5</sup> 433	112	10.1	75.3	5.8	11.7	34.2

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	ALL INDUSTRIES, TOTAL.....	262,131.5	298,645.6	557,767.2	21,436.7	84,295.2	16,958.1	192,203.4
20	Food and kindred products.....	26,628.8	<sup>2</sup> 57,685.1	<sup>2</sup> 84,062.5	1,733.0	7,737.3	1,643.4	21,825.2
21	Tobacco manufactures.....	2,031.4	<sup>2</sup> 2,883.1	<sup>2</sup> 4,914.3	53.0	2,374.4	77.4	1,680.6
22	Textile mill products.....	8,128.5	<sup>2</sup> 11,694.1	<sup>2</sup> 19,733.0	735.2	3,079.0	863.3	6,122.9
23	Apparel and other textile products.....	10,067.6	<sup>2</sup> 11,291.3	<sup>2</sup> 21,299.3	212.4	2,749.4	1,279.3	7,860.9
24	Lumber and wood products.....	4,984.7	<sup>2</sup> 6,230.4	<sup>2</sup> 11,216.7	430.4	1,469.5	563.3	4,020.7
25	Furniture and fixtures.....	4,179.7	<sup>2</sup> 3,616.3	<sup>2</sup> 7,746.3	200.6	1,127.4	376.4	3,068.3
26	Paper and allied products.....	9,620.6	<sup>2</sup> 11,193.0	<sup>2</sup> 20,740.5	1,587.6	2,239.2	587.9	7,395.7
27	Printing and publishing.....	14,313.7	7,489.0	<sup>2</sup> 21,671.1	782.6	1,846.8	913.1	10,476.3
28	Chemicals and allied products.....	23,770.1	<sup>2</sup> 18,908.6	<sup>2</sup> 42,470.2	2,879.9	5,391.0	737.4	17,585.9
29	Petroleum and coal products.....	5,429.2	<sup>2</sup> 16,746.0	<sup>2</sup> 22,041.9	1,000.8	2,023.7	152.5	3,714.3
30	Rubber and plastics products, n.e.c.....	6,817.3	<sup>2</sup> 5,987.2	<sup>2</sup> 12,789.0	679.9	1,671.8	414.9	4,654.0
31	Leather and leather products.....	2,646.0	<sup>2</sup> 2,535.2	<sup>2</sup> 5,183.9	59.7	648.2	327.3	2,078.6
32	Stone, clay, and glass products.....	8,431.3	<sup>2</sup> 6,191.4	<sup>2</sup> 14,604.4	870.6	1,873.1	573.9	7,043.8
33	Primary metal industries.....	19,974.7	<sup>2</sup> 27,024.8	<sup>2</sup> 46,549.7	3,034.8	7,982.2	1,126.4	15,261.1
34	Fabricated metal products.....	17,928.6	<sup>2</sup> 16,625.7	<sup>2</sup> 34,397.8	1,111.4	5,646.5	1,131.1	12,691.1
35	Machinery, except electrical.....	27,724.6	<sup>2</sup> 21,211.4	<sup>2</sup> 48,357.2	1,882.3	10,947.9	1,459.6	17,495.4
36	Electrical equipment and supplies.....	24,844.7	<sup>2</sup> 19,580.7	<sup>2</sup> 43,896.4	1,562.2	8,599.6	1,511.6	17,010.5
37	Transportation equipment.....	28,079.1	<sup>2</sup> 40,235.2	<sup>2</sup> 68,238.1	1,813.6	12,349.8	1,548.4	21,731.3
38	Instruments and related products.....	6,261.9	<sup>2</sup> 3,641.0	<sup>2</sup> 9,845.1	391.2	1,926.5	305.4	3,992.2
39	Miscellaneous manufacturing industries.....	4,586.0	<sup>2</sup> 3,753.4	<sup>2</sup> 8,279.1	199.1	1,439.9	390.4	3,575.9
19	Ordnance and accessories <sup>3</sup> .....	5,683.0	<sup>2</sup> 4,122.7	<sup>2</sup> 9,730.7	216.4	1,172.0	248.6	2,918.7
--	Administrative and auxiliary <sup>4</sup> .....	(X)	(X)	(X)	(X)	(X)	726.5	(X)
20	FOOD AND KINDRED PRODUCTS.....	26,628.8	<sup>2</sup> 57,685.1	<sup>2</sup> 84,062.5	1,733.0	7,737.3	1,643.4	21,825.2
201	Meat products.....	3,499.1	<sup>2</sup> 18,083.1	<sup>2</sup> 21,508.6	198.4	743.9	299.6	2,882.6
2011	Meatpacking plants.....	2,185.9	13,504.3	15,621.5	110.4	486.6	180.9	1,908.3
2013	Sausages and other prepared meats.....	740.8	2,256.2	3,001.4	30.3	127.0	48.6	563.4
2015	Poultry dressing plants.....	572.4	2,322.6	2,885.7	57.7	130.3	70.1	410.9
202	Dairy products.....	3,439.0	<sup>2</sup> 9,388.2	<sup>2</sup> 12,809.4	195.4	482.7	256.9	3,184.8
2021	Creamery butter.....	118.0	878.1	999.9	10.3	33.6	12.0	132.7
2022	Cheese, natural and processed.....	225.3	1,489.0	1,709.8	17.3	134.4	18.0	179.7
2023	Condensed and evaporated milk.....	334.8	863.8	1,204.3	21.0	66.9	12.3	236.2
2024	Ice cream and frozen desserts.....	404.1	659.1	1,061.3	26.8	67.0	29.6	433.0
2026	Fluid milk.....	2,356.8	5,498.2	7,834.1	120.0	180.8	185.0	2,203.2
203	Canned, cured, and frozen foods.....	3,608.6	<sup>2</sup> 5,694.3	<sup>2</sup> 9,285.4	255.4	2,182.8	244.9	2,778.8
2031	Canned and cured seafoods.....	<sup>6</sup> 179.8	340.6	<sup>6</sup> 520.5	9.4	128.9	17.3	<sup>6</sup> 174.6
2032	Canned specialties.....	<sup>6</sup> 601.6	761.8	<sup>6</sup> 1,364.2	28.1	248.7	25.2	<sup>6</sup> 540.8
2033	Canned fruits and vegetables.....	<sup>6</sup> 1,421.0	2,087.1	<sup>6</sup> 3,499.4	102.2	1,088.3	102.4	1,029.5
2034	Dehydrated food products.....	179.2	267.5	442.4	14.8	121.0	9.2	115.8
2035	Pickles, sauces, and salad dressings.....	<sup>6</sup> 280.4	506.3	<sup>6</sup> 783.6	14.6	140.4	19.0	<sup>6</sup> 249.4
2036	Fresh or frozen packaged fish.....	<sup>6</sup> 165.3	394.3	<sup>6</sup> 558.2	8.7	75.3	20.1	<sup>6</sup> 118.5
2037	Frozen fruits and vegetables.....	<sup>6</sup> 781.3	1,336.7	<sup>6</sup> 2,117.1	77.6	380.2	51.7	<sup>6</sup> 550.2
204	Grain mill products.....	2,894.2	<sup>2</sup> 7,036.5	<sup>2</sup> 9,914.1	180.8	749.3	113.1	2,271.0
2041	Flour and other grain mill products.....	485.7	1,961.4	2,447.2	26.2	191.7	22.4	373.1
2042	Prepared feeds for animals and fowls.....	1,245.4	3,592.0	4,827.4	75.8	266.2	54.6	983.7
2043	Cereal preparations.....	506.1	346.2	849.5	19.1	57.4	11.4	365.0
2044	Rice milling.....	103.1	445.1	547.7	9.8	123.0	4.3	80.5
2045	Blended and prepared flour <sup>7</sup> .....	200.2	290.1	490.9	9.4	33.7	7.2	177.8
2046	Wet corn milling.....	353.7	401.7	751.4	40.5	77.3	13.2	290.9
205	Bakery products.....	3,492.6	<sup>2</sup> 2,973.9	<sup>2</sup> 6,466.4	150.7	210.1	280.2	3,030.8
2051	Bread, cake, and related products.....	2,738.1	2,343.4	5,082.9	126.4	135.2	237.0	2,403.8
2052	Cookies and crackers.....	754.5	630.5	1,383.5	24.3	74.9	43.2	627.0
206	Sugar.....	651.4	<sup>2</sup> 1,662.7	<sup>2</sup> 2,305.0	81.2	381.4	32.0	590.8
2061	Raw cane sugar.....	133.8	238.7	368.5	21.4	23.6	8.3	135.7
2062	Cane sugar refining.....	308.5	1,081.0	1,375.7	24.1	165.5	12.4	254.4
2063	Beet sugar.....	209.1	343.0	560.8	35.7	192.3	11.3	200.7
207	Confectionery and related products.....	1,248.9	<sup>2</sup> 1,465.8	<sup>2</sup> 2,695.6	75.6	395.6	77.9	956.0
2071	Confectionery products.....	862.4	1,020.4	1,871.4	53.0	229.9	63.6	635.4
2072	Chocolate and cocoa products.....	196.2	330.3	520.5	9.3	102.1	8.7	184.8
2073	Chewing gum.....	190.3	115.1	303.7	13.3	63.6	5.6	135.8
208	Beverages.....	4,813.1	<sup>2</sup> 4,385.1	9,146.1	369.9	1,506.5	204.5	3,724.8
2082	Malt liquors.....	1,559.2	1,394.8	2,954.3	140.6	168.3	62.6	1,286.0
2083	Malt.....	47.5	168.5	216.4	7.1	87.8	1.9	44.0
2084	Wines, brandy, and brandy spirits.....	195.6	<sup>2</sup> 232.3	<sup>2</sup> 404.1	9.6	155.8	6.1	137.3
2085	Distilled liquor, except brandy.....	<sup>6</sup> 736.8	639.3	<sup>6</sup> 1,364.2	26.9	791.2	18.0	<sup>6</sup> 623.7
2086	Bottled and canned soft drinks.....	1,681.4	1,508.8	3,177.5	168.2	187.0	106.8	1,233.6
2087	Flavoring extracts and sirups, n.e.c.....	592.6	441.4	1,029.6	17.5	116.4	9.1	400.2

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
20	FOOD AND KINDRED PRODUCTS--Continued							
209	Miscellaneous foods and kindred products.....	4,500	1,474	137.2	852.4	94.8	193.8	501.3
2091	Cottonseed oil mills.....	153	113	5.6	27.2	4.4	9.7	17.6
2092	Soybean oil mills.....	102	78	8.0	54.9	5.5	12.2	34.4
2093	Vegetable oil mills, n.e.c.....	41	18	1.7	10.8	1.4	3.1	7.9
2094	Animal and marine fats and oils.....	588	226	13.8	92.5	9.8	22.1	59.0
2095	Roasted coffee.....	267	125	16.1	118.6	9.3	18.8	61.3
2096	Shortening and cooking oils.....	116	93	15.1	113.9	10.6	22.8	74.4
2097	Manufactured ice.....	953	110	8.0	38.4	5.5	10.5	23.5
2098	Macaroni and spaghetti.....	205	75	7.5	43.2	5.4	11.0	25.4
2099	Food preparations, n.e.c.....	2,075	636	61.4	352.9	42.9	83.6	197.8
21	TOBACCO MANUFACTURES.....	329	195	74.9	376.0	65.9	125.1	302.8
2111	Cigarettes.....	16	14	36.6	221.4	32.8	62.8	187.7
2121	Cigars.....	<sup>5</sup> 149	64	19.1	71.6	17.3	31.9	59.1
2131	Chewing and smoking tobacco.....	46	22	3.6	18.1	2.7	4.9	11.5
2141	Tobacco stemming and redrying.....	118	95	15.6	64.9	13.1	25.5	44.5
22	TEXTILE MILL PRODUCTS.....	7,056	4,430	926.3	4,382.5	826.6	1,686.5	3,549.0
2211	Weaving mills, cotton.....	394	332	203.5	942.5	190.0	399.2	834.4
2221	Weaving mills, synthetics.....	<sup>5</sup> 395	311	108.2	526.8	97.9	208.4	443.7
2231	Weaving and finishing mills, wool.....	310	217	41.8	216.8	36.6	76.1	170.7
2241	Narrow fabric mills.....	383	219	25.2	116.7	22.6	45.2	93.1
225	Knitting mills.....	2,685	1,604	239.4	1,031.2	212.2	404.7	805.8
2251	Women's hosiery, except socks.....	<sup>5</sup> 359	260	58.0	230.0	52.6	99.3	190.9
2252	Hosiery, n.e.c.....	<sup>5</sup> 444	285	38.0	133.6	34.9	63.2	111.0
2253	Knit outerwear mills.....	1,168	642	73.6	342.3	64.0	122.1	260.5
2254	Knit underwear mills.....	113	97	30.7	115.8	27.4	49.6	88.3
2256	Knit fabric mills.....	538	289	36.1	196.7	30.6	65.3	144.7
2259	Knitting mills, n.e.c.....	<sup>5</sup> 63	31	3.0	12.8	2.7	5.2	10.4
226	Textile finishing, except wool.....	638	405	73.6	414.8	62.1	133.4	315.5
2261	Finishing plants, cotton.....	216	136	35.7	193.0	30.3	64.3	148.6
2262	Finishing plants, synthetics.....	232	166	25.6	158.7	21.3	47.6	119.3
2269	Finishing plants, n.e.c.....	190	103	12.3	63.1	10.5	21.5	47.6
227	Floor covering mills.....	387	211	44.0	230.6	36.5	77.8	167.0
2271	Woven carpets and rugs.....	63	26	8.7	47.4	7.4	15.4	35.9
2272	Tufted carpets and rugs.....	245	154	32.3	168.3	26.5	57.3	119.9
2279	Carpets and rugs, n.e.c.....	79	31	3.0	14.9	2.6	5.1	11.2
228	Yarn and thread mills.....	763	598	118.1	500.5	109.0	219.8	427.1
2281	Yarn mills, except wool.....	373	323	73.6	306.6	69.4	140.3	271.8
2282	Throwing and winding mills.....	181	130	18.5	78.6	16.9	34.6	64.9
2283	Wool yarn mills.....	134	106	14.6	65.7	12.8	25.7	51.8
2284	Thread mills.....	75	39	11.4	49.6	9.9	19.2	38.6
229	Miscellaneous textile goods.....	1,101	533	72.5	402.6	59.7	121.9	291.7
2291	Felt goods, n.e.c.....	40	28	4.5	26.3	3.6	7.7	19.1
2292	Lace goods.....	142	48	5.0	23.7	4.4	8.4	19.5
2293	Paddings and upholstery filling.....	<sup>5</sup> 154	74	6.7	37.1	5.5	11.1	26.9
2294	Processed textile waste.....	138	58	4.3	20.0	3.7	7.7	14.9
2295	Coated fabrics, not rubberized.....	179	116	17.9	123.6	12.9	27.5	79.7
2296	Tire cord and fabric.....	20	19	10.1	48.7	9.2	18.4	41.7
2297	Scouring and combing plants.....	69	40	5.3	27.3	4.8	9.8	21.8
2298	Cordage and twine.....	165	82	10.1	48.3	8.6	17.1	36.1
2299	Textile goods, n.e.c.....	194	68	8.6	47.6	7.0	14.2	32.0
23	APPAREL AND OTHER TEXTILE PRODUCTS.....	26,385	12,688	1,357.1	5,580.4	1,200.9	2,181.4	4,342.3
2311	Men's and boys' suits and coats.....	1,004	650	136.8	645.1	120.8	223.4	512.6
232	Men's and boys' furnishings.....	2,850	1,965	343.8	1,209.6	313.3	571.4	997.0
2321	Men's and boys' shirts and nightwear.....	763	565	113.5	385.1	103.1	187.9	319.9
2322	Men's and boys' underwear.....	88	69	13.7	45.5	12.8	23.5	39.3
2323	Men's and boys' neckwear.....	297	113	7.8	37.3	6.6	11.3	23.5
2327	Men's and boys' separate trousers.....	<sup>5</sup> 693	460	89.0	320.0	81.4	153.0	266.3
2328	Men's and boys' work clothing.....	464	396	78.3	254.9	72.3	129.6	217.9
2329	Men's and boys' clothing, n.e.c.....	545	362	41.5	166.8	37.1	66.1	130.1
233	Women's and misses' outerwear.....	<sup>5</sup> 9,423	5,616	410.3	1,758.5	358.7	637.5	1,338.3
2331	Women's and misses' blouses and waists.....	<sup>5</sup> 994	630	56.4	210.0	50.8	91.3	167.8
2335	Women's and misses' dresses.....	<sup>5</sup> 5,225	3,095	209.9	889.9	184.0	324.4	687.8
2337	Women's and misses' suits and coats.....	<sup>5</sup> 2,103	1,235	84.0	423.4	71.8	127.4	308.7
2339	Women's and misses' outerwear, n.e.c.....	<sup>5</sup> 1,101	656	60.0	235.2	52.1	94.4	174.0

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
20	FOOD AND KINDRED PRODUCTS--Continued							
209	Miscellaneous foods and kindred products.....	2,981.9	<sup>2</sup> 6,995.5	<sup>2</sup> 9,931.9	225.6	1,085.0	134.3	2,405.6
2091	Cottonseed oil mills.....	66.1	342.6	409.3	5.0	101.5	8.4	100.8
2092	Soybean oil mills.....	247.3	1,923.9	2,137.1	21.2	347.7	6.5	152.1
2093	Vegetable oil mills, n.e.c.....	41.8	198.2	236.7	1.9	51.0	2.0	42.7
2094	Animal and marine fats and oils.....	208.2	348.9	559.9	21.7	29.3	14.3	193.3
2095	Roasted coffee.....	723.4	1,364.3	2,079.9	49.9	153.2	17.2	616.4
2096	Shortening and cooking oils.....	392.4	1,329.4	1,731.7	29.3	164.8	13.5	264.5
2097	Manufactured ice.....	76.3	24.3	100.3	4.8	2.4	10.8	90.2
2098	Macaroni and spaghetti.....	119.7	148.6	266.0	5.2	20.9	7.3	96.0
2099	Food preparations, n.e.c.....	1,106.7	1,315.3	2,411.0	86.6	214.2	54.3	849.6
21	TOBACCO MANUFACTURES.....	2,031.4	<sup>2</sup> 2,883.1	<sup>2</sup> 4,914.3	53.0	2,374.4	77.4	1,680.6
2111	Cigarettes.....	<sup>6</sup> 1,639.7	1,405.4	<sup>6</sup> 3,044.7	33.8	1,423.9	35.6	<sup>6</sup> 1,310.3
2121	Cigars.....	<sup>6</sup> 197.7	169.5	<sup>6</sup> 367.0	5.5	55.1	20.7	<sup>6</sup> 193.0
2131	Chewing and smoking tobacco.....	63.5	58.6	122.2	1.5	36.8	4.1	74.0
2141	Tobacco stemming and redrying.....	<sup>6</sup> 130.5	1,249.6	<sup>6</sup> 1,380.4	12.2	858.6	17.0	103.3
22	TEXTILE MILL PRODUCTS.....	8,128.5	<sup>2</sup> 11,694.1	<sup>2</sup> 19,733.0	735.2	3,079.0	863.3	6,122.9
2211	Weaving mills, cotton.....	1,632.9	1,770.0	3,346.1	170.0	651.2	209.0	1,256.8
2221	Weaving mills, synthetics.....	918.4	1,360.3	2,280.2	110.9	383.6	88.2	661.5
2231	Weaving and finishing mills, wool.....	429.5	657.7	1,091.6	28.0	177.2	47.4	386.6
2241	Narrow fabric mills.....	208.7	227.2	433.1	15.3	66.8	23.2	172.5
225	Knitting mills.....	1,897.4	<sup>2</sup> 2,579.8	4,451.1	119.5	677.7	220.4	1,396.0
2251	Women's hosiery, except socks.....	414.8	430.4	839.1	27.3	145.7	51.5	296.3
2252	Hosiery, n.e.c.....	219.9	290.2	508.6	9.4	84.3	43.3	192.2
2253	Knit outerwear mills.....	599.1	672.8	1,269.8	28.4	176.8	68.6	463.6
2254	Knit underwear mills.....	203.3	251.8	445.3	7.2	101.6	28.4	170.7
2256	Knit fabric mills.....	437.9	918.1	1,349.3	45.9	164.6	25.0	252.9
2259	Knitting mills, n.e.c.....	22.4	16.5	39.0	1.3	4.7	3.6	20.3
226	Textile finishing, except wool.....	709.0	<sup>2</sup> 1,027.6	<sup>2</sup> 1,733.2	56.7	191.8	70.8	582.3
2261	Finishing plants, cotton.....	313.8	579.5	893.9	27.7	117.0	42.1	332.3
2262	Finishing plants, synthetic.....	270.6	280.7	549.1	20.7	49.8	19.5	1768
2269	Finishing plants, n.e.c.....	124.6	167.4	290.2	8.3	25.0	9.2	73.2
227	Floor covering mills.....	594.7	<sup>2</sup> 1,184.1	<sup>2</sup> 1,775.7	45.5	296.5	35.7	394.9
2271	Woven carpets and rugs.....	95.9	132.2	232.5	6.2	59.0	13.4	120.0
2272	Tufted carpets and rugs.....	453.4	1,004.9	1,453.0	33.7	228.5	19.9	259.3
2279	Carpets and rugs, n.e.c.....	45.4	47.0	90.2	5.6	9.0	2.4	15.6
228	Yarn and thread mills.....	944.0	<sup>2</sup> 1,637.9	<sup>2</sup> 2,588.8	127.5	325.4	102.7	652.3
2281	Yarn mills, except wool.....	552.2	854.0	1,403.1	89.0	175.2	61.6	363.2
2282	Throwing and winding mills.....	173.1	387.8	568.0	18.0	48.0	13.6	93.6
2283	Wool yarn mills.....	120.1	237.9	362.3	8.9	56.7	17.4	119.7
2284	Thread mills.....	98.6	158.2	255.4	11.6	45.5	10.1	75.8
229	Miscellaneous textile goods.....	793.9	<sup>2</sup> 1,249.5	2,033.2	61.8	308.8	65.9	620.0
2291	Felt goods, n.e.c.....	63.6	69.3	133.6	3.2	16.6	5.0	58.6
2292	Lace goods.....	36.6	28.0	65.7	2.0	11.5	4.9	31.5
2293	Paddings and upholstery filling.....	79.9	92.1	172.2	3.4	17.8	6.9	65.6
2294	Processed textile waste.....	33.4	53.3	88.9	1.5	14.5	4.2	31.0
2295	Coated fabrics, not rubberized.....	260.8	376.0	629.1	17.8	110.8	13.7	179.3
2296	Tire cord and fabric.....	91.5	354.3	441.1	15.2	49.2	9.2	72.3
2297	Scouring and combing plants.....	37.6	57.6	96.5	5.7	17.1	5.8	45.4
2298	Cordage and twine.....	95.4	94.6	187.5	4.4	42.3	8.9	57.6
2299	Textile goods, n.e.c.....	95.1	124.3	218.6	8.6	29.0	7.3	78.7
23	APPAREL AND OTHER TEXTILE PRODUCTS.....	10,067.6	<sup>2</sup> 11,291.3	<sup>2</sup> 21,299.3	212.4	2,749.4	1,279.3	7,860.9
2311	Men's and boys' suits and coats.....	1,055.5	868.1	1,926.1	15.7	331.8	122.7	831.9
232	Men's and boys' furnishings.....	2,170.4	2,589.2	4,720.4	54.2	778.7	305.6	1,617.7
2321	Men's and boys' shirts and nightwear.....	698.4	748.7	1,439.1	14.5	229.5	112.9	599.4
2322	Men's and boys' underwear.....	83.3	106.3	183.6	6.1	27.5	12.1	63.2
2323	Men's and boys' neckwear.....	69.4	75.6	144.7	0.8	16.0	8.4	58.1
2327	Men's and boys' separate trousers.....	545.2	638.3	1,181.6	17.0	182.7	73.8	383.1
2328	Men's and boys' work clothing.....	463.0	670.1	1,110.5	10.7	212.7	62.5	330.7
2329	Men's and boys' clothing, n.e.c.....	311.1	350.2	660.9	5.1	110.3	35.9	183.2
233	Women's and misses' outerwear.....	3,192.2	<sup>2</sup> 3,348.7	6,536.4	42.6	604.8	405.4	2,459.8
2331	Women's and misses' blouses and waists.....	385.0	355.4	730.0	6.2	86.0	57.6	300.5
2335	Women's and misses' dresses.....	1,589.1	1,497.1	3,076.4	19.0	221.3	200.0	1,180.9
2337	Women's and misses' suits and coats.....	793.0	975.7	1,780.9	9.5	153.1	88.3	637.9
2339	Women's and misses' outerwear, n.e.c.....	425.1	520.5	949.1	7.9	144.4	59.5	340.5

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
23	APPAREL AND OTHER TEXTILE PRODUCTS--Continued							
234	Women's and children's undergarments.....	1,215	808	113.9	444.8	99.7	178.1	331.5
2341	Women's and children's underwear.....	892	568	76.0	283.5	67.6	120.4	222.5
2342	Corsets and allied garments.....	323	240	37.9	161.3	32.1	57.7	109.0
235	Hats, caps, and millinery.....	<sup>5</sup> 843	290	23.7	101.7	20.9	37.1	77.6
2351	Millinery.....	<sup>5</sup> 476	133	8.2	36.9	7.2	12.3	29.0
2352	Hats and caps, except millinery.....	<sup>5</sup> 367	157	15.5	64.8	13.7	24.8	48.6
236	Children's outerwear.....	1,331	845	77.5	295.3	68.9	124.7	230.7
2361	Children's dresses and blouses.....	<sup>5</sup> 622	426	34.9	133.0	30.8	53.9	102.0
2363	Children's coats and suits.....	232	136	10.9	46.0	9.6	17.7	34.4
2369	Children's outerwear, n.e.c.....	477	283	31.7	116.3	28.5	53.1	94.3
2371	Fur goods.....	<sup>5</sup> 1,305	88	8.5	59.3	7.3	13.2	47.4
238	Miscellaneous apparel and accessories.....	1,397	740	70.7	284.0	62.3	112.5	213.4
2381	Fabric dress and work gloves.....	<sup>5</sup> 173	109	14.0	48.6	13.0	24.5	41.6
2384	Robes and dressing gowns.....	<sup>5</sup> 242	140	11.6	44.1	10.4	18.1	33.9
2385	Waterproof outer garments.....	319	212	23.3	95.3	20.2	36.9	70.9
2386	Leather and sheep lined clothing.....	137	69	5.0	23.2	4.5	8.2	18.2
2387	Apparel belts.....	277	108	8.4	37.7	7.1	12.4	24.3
2389	Apparel and accessories, n.e.c.....	249	102	8.4	35.1	7.1	12.4	24.5
239	Miscellaneous fabricated textile products.....	7,017	1,686	171.9	782.1	149.0	283.5	593.8
2391	Curtains and draperies.....	1,433	275	25.8	101.0	22.8	43.3	78.7
2392	Housefurnishings, n.e.c.....	1,219	414	45.2	190.7	38.4	74.7	141.1
2393	Textile bags.....	197	97	9.1	38.0	8.1	15.5	28.7
2394	Canvas products.....	859	146	15.1	68.1	12.8	23.8	48.4
2395	Pleating and stitching.....	1,105	205	13.4	53.7	12.3	22.0	45.4
2396	Automotive and apparel trimmings <sup>8</sup> .....	776	243	30.5	181.4	25.8	48.4	136.5
2397	Schiffli machine embroideries.....	<sup>5</sup> 608	61	5.4	30.5	5.0	10.4	25.1
2399	Fabricated textile products, n.e.c.....	820	245	27.4	118.7	23.8	45.4	89.9
24	LUMBER AND WOOD PRODUCTS.....	36,849	5,826	556.1	2,806.3	497.6	981.4	2,295.1
2411	Logging camps and logging contractors.....	16,338	601	71.9	347.1	68.7	128.1	313.1
242	Sawmills and planing mills.....	11,496	2,367	216.4	1,029.4	197.5	387.6	875.0
2421	Sawmills and planing mills, general.....	10,300	1,928	181.2	886.2	165.4	324.3	756.2
2426	Hardwood dimension and flooring.....	667	331	28.0	114.6	25.3	51.5	93.4
2429	Special product sawmills, n.e.c.....	529	108	7.2	28.6	6.8	11.8	25.4
243	Millwork, plywood, and related products.....	4,566	1,500	153.5	891.8	131.6	267.8	693.4
2431	Millwork.....	3,348	771	65.3	374.6	54.3	107.4	275.6
2432	Veneer and plywood.....	666	514	71.9	414.8	65.4	136.5	356.5
2433	Prefabricated wood structures.....	552	215	16.3	102.4	11.9	23.9	61.3
244	Wooden containers.....	906	305	31.5	135.4	28.5	56.1	110.3
2441	Nailed wooden boxes and shooks.....	597	183	16.1	71.8	14.6	28.3	57.7
2442	Wirebound boxes and crates.....	134	63	9.4	36.5	8.5	17.2	29.8
2443	Veneer and plywood containers.....	84	39	3.3	11.6	3.0	5.9	9.8
2445	Cooperage.....	91	20	2.7	15.5	2.4	4.7	13.0
249	Miscellaneous wood products.....	3,543	1,053	82.8	402.6	71.3	141.8	303.3
2491	Wood preserving.....	376	177	12.2	61.9	10.3	21.7	47.1
2499	Wood products, n.e.c.....	3,167	876	70.6	340.7	61.0	120.1	256.2
25	FURNITURE AND FIXTURES.....	10,010	3,447	424.9	2,258.8	357.3	715.0	1,653.5
251	Household furniture.....	6,304	2,362	297.6	1,456.7	257.3	512.9	1,101.8
2511	Wood household furniture.....	3,086	1,011	157.6	739.2	139.9	284.4	583.5
2512	Upholstered household furniture.....	1,640	723	74.1	370.7	64.0	124.0	282.9
2514	Metal household furniture.....	487	252	31.2	157.2	26.0	50.5	111.1
2515	Mattresses and bedsprings.....	1,012	340	31.1	170.7	24.3	47.6	110.4
2519	Household furniture, n.e.c.....	79	36	3.6	18.9	3.1	6.4	13.9
252	Office furniture.....	367	191	35.4	226.3	28.2	57.6	161.9
2521	Wood office furniture.....	179	70	8.3	47.2	7.0	14.5	36.1
2522	Metal office furniture.....	188	121	27.1	179.1	21.2	43.1	125.8
2531	Public building furniture.....	438	188	22.4	131.2	17.4	35.9	88.4
254	Partitions and fixtures.....	1,971	527	48.1	324.8	37.7	76.1	220.6
2541	Wood partitions and fixtures.....	1,472	340	25.9	176.1	21.1	42.0	127.6
2542	Metal partitions and fixtures.....	499	187	22.2	148.7	16.6	34.1	93.0
259	Miscellaneous furniture and fixtures.....	930	179	21.4	119.8	16.7	32.5	80.8
2591	Venetian blinds and shades.....	606	61	11.6	62.1	8.5	15.9	37.6
2599	Furniture and fixtures, n.e.c.....	324	118	9.8	57.7	8.2	16.6	43.2

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
23	APPAREL AND OTHER TEXTILE PRODUCTS--Continued							
234	Women's and children's undergarments.....	875.5	<sup>2</sup> 914.5	<sup>1</sup> 1,787.7	20.1	285.8	113.8	740.9
2341	Women's and children's underwear.....	524.1	604.7	1,125.5	13.4	169.6	76.7	430.8
2342	Corsets and allied garments.....	351.4	309.8	662.2	6.7	116.2	37.1	310.1
235	Hats, caps, and millinery.....	164.1	<sup>2</sup> 141.4	<sup>2</sup> 306.7	2.3	34.7	30.8	184.8
2351	Millinery.....	63.3	48.8	112.2	0.5	6.4	14.2	93.2
2352	Hats and caps, except millinery.....	100.8	92.6	194.5	1.8	28.3	16.6	91.6
236	Children's outerwear.....	532.1	<sup>2</sup> 583.8	<sup>2</sup> 1,111.9	8.9	129.7	81.8	466.6
2361	Children's dresses and blouses.....	240.7	251.8	493.0	3.3	46.3	35.8	205.6
2363	Children's coats and suits.....	78.4	96.0	175.4	1.4	15.6	11.8	72.7
2369	Children's outerwear, n.e.c.....	213.0	236.0	443.5	4.2	67.8	34.2	188.3
2371	Fur goods.....	117.1	215.4	332.8	2.0	33.3	9.3	110.6
238	Miscellaneous apparel and accessories.....	509.2	<sup>2</sup> 589.7	<sup>2</sup> 1,095.4	10.1	137.7	61.5	377.2
2381	Fabric dress and work gloves.....	86.7	94.7	176.5	2.0	26.0	12.8	68.4
2384	Robes and dressing gowns.....	83.5	119.4	203.0	1.5	18.6	11.9	68.7
2385	Waterproof outer garments.....	174.4	197.9	371.9	2.9	47.5	16.4	111.3
2386	Leather and sheep lined clothing.....	42.3	54.0	97.0	0.5	8.6	3.4	23.4
2387	Apparel belts.....	66.5	60.4	127.5	0.9	15.2	9.8	62.2
2389	Apparel and accessories, n.e.c.....	55.8	63.3	119.5	2.3	21.8	7.2	43.2
239	Miscellaneous fabricated textile products.....	1,451.5	<sup>2</sup> 2,040.5	<sup>2</sup> 3,481.9	56.5	412.9	148.4	1,071.4
2391	Curtains and draperies.....	180.5	241.5	421.0	4.3	44.4	22.0	132.0
2392	Housefurnishings, n.e.c.....	343.3	594.2	938.6	11.7	128.2	39.7	285.8
2393	Textile bags.....	88.5	204.4	290.9	1.9	32.8	7.2	56.5
2394	Canvas products.....	126.2	146.6	271.5	3.5	42.6	11.2	73.5
2395	Pleating and stitching.....	89.8	48.4	138.1	1.4	7.4	16.4	95.2
2396	Automotive and apparel trimmings <sup>2</sup> .....	333.5	446.8	774.3	13.4	80.9	24.5	227.8
2397	Schiffli machine embroideries.....	59.5	40.3	99.6	0.5	5.6	6.1	55.4
2399	Fabricated textile products, n.e.c.....	230.2	318.3	547.9	19.8	71.0	21.3	145.2
24	LUMBER AND WOOD PRODUCTS.....	4,984.7	<sup>2</sup> 6,230.4	<sup>2</sup> 11,216.7	430.4	1,469.5	563.3	4,020.7
2411	Logging camps and logging contractors.....	705.2	793.7	1,501.0	103.9	106.6	73.1	520.5
242	Sawmills and planing mills.....	1,787.6	<sup>2</sup> 2,216.2	<sup>2</sup> 4,006.4	144.6	603.7	242.7	1,572.6
2421	Sawmills and planing mills, general.....	1,559.6	1,950.9	3,513.2	129.4	517.6	207.4	1,376.1
2426	Hardwood dimension and flooring.....	176.4	198.5	373.5	12.5	64.6	28.1	155.1
2429	Special product sawmills, n.e.c.....	51.6	66.8	119.7	2.7	21.5	7.2	41.4
243	Millwork, plywood, and related products.....	1,499.8	<sup>2</sup> 2,122.2	<sup>2</sup> 3,623.1	105.4	462.1	147.3	1,239.8
2431	Millwork.....	637.2	826.9	1,459.9	24.7	215.6	65.3	524.0
2432	Veneer and plywood.....	671.7	994.5	1,669.2	71.1	189.4	66.2	559.2
2433	Prefabricated wood structures.....	190.9	300.8	494.0	9.6	57.1	15.8	156.6
244	Wooden containers.....	240.9	<sup>2</sup> 293.2	<sup>2</sup> 534.0	10.1	72.5	31.0	174.2
2441	Nailed wooden boxes and shooks.....	125.3	153.7	278.2	5.1	32.7	14.5	85.0
2442	Wirebound boxes and crates.....	71.1	74.4	145.0	2.8	15.9	9.9	55.6
2443	Veneer and plywood containers.....	18.4	13.7	32.0	0.5	3.9	4.0	16.1
2445	Cooperage.....	26.1	51.4	78.8	1.7	20.0	2.6	17.5
249	Miscellaneous wood products.....	751.2	<sup>2</sup> 805.1	<sup>2</sup> 1,552.2	66.4	224.6	69.2	513.6
2491	Wood preserving.....	135.6	214.7	344.3	10.7	77.8	11.2	93.3
2499	Wood products, n.e.c.....	615.6	590.4	1,207.9	55.7	146.8	58.0	420.3
25	FURNITURE AND FIXTURES.....	4,179.7	<sup>2</sup> 3,616.3	<sup>2</sup> 7,746.3	200.6	1,127.4	376.4	3,068.3
251	Household furniture.....	2,660.3	<sup>2</sup> 2,474.5	<sup>2</sup> 5,107.0	115.5	713.7	270.3	2,047.5
2511	Wood household furniture.....	1,334.1	1,132.1	2,439.1	74.4	397.0	141.0	993.2
2512	Upholstered household furniture.....	657.3	588.6	1,242.1	16.5	138.5	67.8	506.7
2514	Metal household furniture.....	299.6	316.9	618.2	9.7	86.6	29.3	247.0
2515	Mattresses and bedsprings.....	334.2	407.7	742.7	10.3	83.1	30.1	285.5
2519	Household furniture, n.e.c.....	35.1	29.2	64.9	4.6	8.5	2.1	15.1
252	Office furniture.....	480.8	<sup>2</sup> 314.1	<sup>2</sup> 786.8	37.2	124.2	26.4	285.3
2521	Wood office furniture.....	90.5	73.2	161.5	5.7	27.3	6.5	57.0
2522	Metal office furniture.....	390.3	240.9	625.3	31.5	96.9	19.9	228.3
2531	Public building furniture.....	231.9	194.1	418.8	10.0	86.2	16.9	141.8
254	Partitions and fixtures.....	588.3	<sup>2</sup> 431.3	<sup>2</sup> 1,015.3	28.0	132.2	44.6	433.5
2541	Wood partitions and fixtures.....	293.9	222.7	515.8	8.7	59.9	24.3	219.2
2542	Metal partitions and fixtures.....	294.4	208.6	499.5	19.3	72.3	20.3	214.3
259	Miscellaneous furniture and fixtures.....	218.4	202.3	418.4	9.9	71.1	18.2	160.2
2591	Venetian blinds and shades.....	122.3	125.6	246.9	6.5	50.0	10.7	94.3
2599	Furniture and fixtures, n.e.c.....	96.1	76.7	171.5	3.4	21.1	7.5	65.9

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
26	PAPER AND ALLIED PRODUCTS.....	5,903	3,818	638.1	4,428.2	506.8	1,070.2	3,197.2
2611	Pulpmills.....	63	44	15.2	126.5	12.3	25.9	96.6
2621	Papermills, except building paper.....	351	311	139.8	1,120.1	112.2	248.7	848.7
2631	Paperboard mills.....	282	263	67.0	534.0	53.7	118.2	405.5
264	Miscellaneous converted paper products.....	2,498	1,288	185.3	1,175.3	145.7	297.2	809.7
2641	Paper coating and glazing.....	399	204	35.4	248.1	25.8	54.9	157.2
2642	Envelopes.....	228	163	22.5	141.9	18.1	37.6	97.9
2643	Bags, except textile bags.....	557	309	46.1	277.6	36.9	75.1	196.8
2644	Wallpaper.....	75	29	2.3	14.2	1.8	3.5	9.7
2645	Die-cut paper and board.....	438	187	18.2	114.5	14.4	28.6	77.5
2646	Pressed and molded pulp goods.....	58	45	6.7	44.8	5.4	11.4	33.0
2647	Sanitary paper products.....	127	88	22.0	154.1	18.2	37.5	118.5
2649	Converted paper products, n.e.c.....	616	263	32.1	180.1	25.1	48.6	119.1
265	Paperboard containers and boxes.....	2,616	1,839	219.3	1,391.2	173.1	359.1	970.4
2651	Folding paperboard boxes <sup>9</sup> .....	572	393	49.2	322.0	39.4	81.8	227.8
2652	Setup paperboard boxes.....	453	294	20.9	99.5	18.1	35.0	72.8
2653	Corrugated and solid fiber boxes.....	1,073	803	97.0	655.4	72.9	152.3	434.4
2654	Sanitary food containers.....	249	189	36.5	220.6	29.4	62.1	162.4
2655	Fiber cans, drums, and related material.....	269	160	15.7	93.7	13.3	27.9	73.0
2661	Building paper and board mills.....	93	73	11.5	81.1	9.8	21.1	66.3
27	PRINTING AND PUBLISHING.....	38,001	8,037	1,024.6	7,111.9	629.1	1,192.7	4,009.9
2711	Newspapers.....	8,093	2,030	333.8	2,214.6	168.5	301.6	1,121.3
2721	Periodicals.....	2,510	453	76.1	613.7	14.5	24.9	80.1
273	Books.....	1,769	604	96.8	688.9	49.4	98.1	312.0
2731	Book publishing.....	1,024	284	51.4	386.4	12.3	24.5	81.2
2732	Book printing.....	745	320	45.4	302.5	37.1	73.6	230.8
2741	Miscellaneous publishing.....	1,497	205	30.2	192.1	14.0	23.7	74.1
275	Commercial printing.....	19,498	3,212	328.6	2,345.9	260.3	508.0	1,681.1
2751	Commercial printing, except lithographic.....	12,100	1,436	173.7	1,176.6	141.3	271.2	874.2
2752	Commercial printing, lithographic.....	6,820	1,646	145.8	1,110.1	111.6	222.2	763.8
2753	Engraving and plate printing.....	578	130	9.1	59.2	7.4	14.6	43.1
2761	Manifold business forms.....	541	294	34.6	241.2	25.4	51.5	159.7
2771	Greeting card publishing.....	223	92	27.6	150.6	16.4	31.3	75.0
278	Blankbooks and bookbinding.....	1,467	532	54.7	300.5	47.7	90.9	231.4
2782	Blankbooks and looseleaf binders.....	447	196	24.3	136.0	20.4	40.4	100.0
2789	Bookbinding and related work.....	1,020	336	30.4	164.5	27.3	50.5	131.4
279	Printing trade services.....	2,403	615	42.2	364.4	32.9	62.7	275.2
2791	Typesetting.....	1,535	366	25.5	207.6	21.0	40.2	163.3
2793	Photoengraving.....	736	193	13.2	126.3	9.4	17.6	89.9
2794	Electrotyping.....	132	56	3.5	30.5	2.5	4.9	22.0
28	CHEMICALS AND ALLIED PRODUCTS.....	11,805	4,348	849.2	6,508.2	547.3	1,096.9	3,593.0
281	Industrial chemicals.....	2,034	989	248.0	2,090.0	161.1	328.1	1,226.0
2812	Alkalies and chlorine.....	44	40	18.6	150.5	12.5	24.8	91.1
2813	Industrial gases.....	509	157	10.3	78.8	5.3	11.1	36.6
2815	Cyclic intermediates and crudes.....	176	108	30.1	252.0	20.5	41.9	153.5
2816	Inorganic pigments.....	98	60	12.6	97.2	8.9	17.7	63.2
2818	Industrial organic chemicals, n.e.c.....	489	268	95.3	850.3	62.2	126.6	501.2
2819	Industrial inorganic chemicals, n.e.c. <sup>10</sup> .....	718	356	81.1	661.2	51.7	106.0	380.4
282	Plastics materials and synthetics.....	769	421	172.1	1,291.6	121.2	243.1	798.1
2821	Plastics materials and resins.....	661	341	70.8	569.9	47.0	96.0	334.3
2822	Synthetic rubber.....	47	27	12.5	109.5	8.4	16.6	65.8
2823	Cellulosic manmade fibers.....	23	20	31.9	198.2	25.3	50.0	141.1
2824	Organic fibers, noncellulosic.....	38	33	56.9	414.0	40.5	80.5	256.9
283	Drugs.....	1,126	405	117.8	940.5	65.5	127.8	403.1
2831	Biological products.....	128	44	7.4	53.8	4.8	9.3	25.1
2833	Medicinals and botanicals.....	125	44	6.5	53.4	4.2	8.7	29.5
2834	Pharmaceutical preparations.....	873	317	103.9	833.3	56.5	109.8	348.5
284	Soap, cleaners, and toilet goods.....	2,509	673	97.2	681.5	61.6	119.8	347.4
2841	Soap and other detergents.....	667	205	30.3	241.3	20.2	40.4	145.3
2842	Polishes and sanitation goods.....	1,005	203	19.3	126.7	11.9	22.6	56.6
2843	Surface active agents.....	164	71	5.7	49.3	3.0	6.2	20.1
2844	Toilet preparations.....	673	194	41.9	264.2	26.5	50.6	125.4

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
26	PAPER AND ALLIED PRODUCTS.....	9,620.6	<sup>2</sup> 11,193.0	<sup>2</sup> 20,740.5	1,587.6	2,239.2	587.9	7,395.7
2611	Pulpmills.....	333.0	408.7	735.2	122.3	99.1	15.1	295.8
2621	Papermills, except building paper.....	2,343.8	2,509.8	4,835.5	550.1	555.0	129.8	1,857.2
2631	Paperboard mills.....	1,503.4	1,404.7	2,903.5	394.3	191.7	63.4	1,186.2
264	Miscellaneous converted paper products.....	2,710.1	<sup>2</sup> 3,301.2	<sup>2</sup> 5,977.3	266.8	689.1	166.6	1,962.4
2641	Paper coating and glazing.....	616.3	797.9	1,405.1	69.2	175.6	32.0	457.4
2642	Envelopes.....	253.1	219.5	470.3	13.4	58.4	20.7	189.0
2643	Bags, except textile bags.....	561.0	809.9	1,363.3	45.3	161.6	42.3	369.7
2644	Wallpaper.....	24.4	20.3	44.1	0.5	11.0	2.2	20.9
2645	Die-cut paper and board.....	231.0	266.5	498.8	8.8	54.3	15.1	183.2
2646	Pressed and molded pulp goods.....	97.8	48.7	145.9	17.6	16.3	5.7	70.0
2647	Sanitary paper products.....	539.6	759.3	1,293.9	89.6	79.2	19.1	369.7
2649	Converted paper products, n.e.c.....	386.9	379.1	755.9	22.4	132.7	29.5	302.5
265	Paperboard containers and boxes.....	2,549.6	<sup>2</sup> 3,415.4	<sup>2</sup> 5,953.3	233.8	673.3	201.1	1,941.0
2651	Folding paperboard boxes.....	561.5	654.2	1,211.2	41.8	172.5	51.3	476.9
2652	Setup paperboard boxes.....	158.6	121.4	279.5	6.1	30.5	20.5	131.7
2653	Corrugated and solid fiber boxes.....	1,128.2	1,828.4	2,955.9	123.3	257.6	83.2	804.0
2654	Sanitary food containers.....	520.1	608.3	1,121.4	49.3	175.8	32.9	402.2
2655	Fiber cans, drums, and related material.....	181.2	203.1	385.3	13.3	36.9	13.2	126.2
2661	Building paper and board mills.....	180.7	153.2	335.7	20.3	31.0	11.9	153.1
27	PRINTING AND PUBLISHING.....	14,313.7	<sup>2</sup> 7,489.0	<sup>2</sup> 21,671.1	782.6	1,846.8	913.1	10,476.3
2711	Newspapers.....	4,279.0	1,616.4	5,894.2	251.5	165.3	306.4	3,201.9
2721	Periodicals.....	1,816.4	1,147.8	2,962.0	46.5	164.7	67.7	1,349.0
273	Books.....	1,914.6	<sup>2</sup> 1,036.6	<sup>2</sup> 2,868.3	103.2	636.9	82.9	1,354.0
2731	Book publishing.....	1,397.5	759.2	2,070.3	57.0	567.1	46.8	995.7
2732	Book printing.....	517.1	277.4	798.0	46.2	69.8	36.1	358.3
2741	Miscellaneous publishing.....	396.8	193.0	593.5	8.7	40.0	22.6	252.9
275	Commercial printing.....	3,920.4	<sup>2</sup> 2,593.4	<sup>2</sup> 6,498.1	273.2	487.8	300.3	2,961.0
2751	Commercial printing, except lithographic.....	1,938.8	1,315.3	3,238.9	144.1	270.8	170.2	1,578.3
2752	Commercial printing, lithographic.....	1,882.0	1,238.1	3,120.2	125.3	207.0	121.1	1,302.0
2753	Engraving and plate printing.....	99.6	40.0	139.0	3.8	10.0	9.0	80.7
2761	Manifold business forms.....	553.1	385.4	935.8	39.7	99.1	28.8	377.7
2771	Greeting card publishing.....	372.3	171.9	517.9	14.9	147.8	21.5	204.6
278	Blankbooks and bookbinding.....	518.9	<sup>2</sup> 234.8	<sup>2</sup> 750.6	25.9	80.1	42.2	340.8
2782	Blankbooks and looseleaf binders.....	257.4	154.4	408.9	12.4	59.1	17.9	168.5
2789	Bookbinding and related work.....	261.5	80.4	341.7	13.5	21.0	24.3	172.3
279	Printing trade services.....	542.2	<sup>2</sup> 109.7	<sup>2</sup> 650.7	19.0	25.1	40.7	434.4
2791	Typesetting.....	304.1	51.9	355.7	12.0	14.4	21.0	205.4
2793	Photoengraving.....	191.8	43.7	234.4	6.3	8.5	14.6	171.8
2794	Electrotyping.....	46.3	14.1	60.6	0.7	2.2	5.1	57.2
28	CHEMICALS AND ALLIED PRODUCTS.....	23,770.1	<sup>2</sup> 18,908.6	<sup>2</sup> 42,470.2	2,879.9	5,391.0	737.4	17,585.9
281	Industrial chemicals.....	7,705.8	<sup>2</sup> 6,410.8	<sup>2</sup> 14,044.3	1,358.4	1,727.6	236.6	6,171.1
2812	Alkalies and chlorine.....	406.6	300.2	705.2	92.7	69.4	19.7	389.2
2813	Industrial gases.....	401.5	189.2	589.7	123.9	21.3	9.8	260.2
2815	Cyclic intermediates and crudes.....	723.8	869.8	1,586.4	135.9	261.4	27.7	605.3
2816	Inorganic pigments.....	316.3	235.0	549.3	20.8	112.1	11.5	286.4
2818	Industrial organic chemicals, n.e.c.....	3,579.1	2,866.0	6,417.1	724.8	796.9	85.5	2,727.4
2819	Industrial inorganic chemicals, n.e.c. <sup>10</sup> .....	2,278.5	1,950.6	4,196.6	260.3	466.5	82.4	1,902.6
282	Plastics materials and synthetics.....	3,809.6	<sup>2</sup> 3,519.2	<sup>2</sup> 7,347.1	727.8	865.4	144.7	2,865.3
2821	Plastics materials and resins.....	1,657.3	1,855.1	3,500.5	311.2	397.5	61.4	1,202.3
2822	Synthetic rubber.....	398.6	516.7	916.1	74.0	95.9	11.8	329.5
2823	Cellulosic manmade fibers.....	506.8	383.3	902.8	51.6	108.8	30.1	411.5
2824	Organic fibers, noncellulosic.....	1,246.9	764.1	2,027.7	291.0	263.2	41.4	922.0
283	Drugs.....	4,034.6	<sup>2</sup> 1,257.5	<sup>2</sup> 5,246.2	204.4	735.7	99.0	2,807.4
2831	Biological products.....	109.3	56.4	160.0	12.1	46.1	5.8	60.4
2833	Medicinals and botanicals.....	217.5	175.2	387.4	23.2	67.4	8.1	151.3
2834	Pharmaceutical preparations.....	3,707.8	1,025.9	4,698.8	169.1	622.2	85.1	2,595.7
284	Soap, cleaners, and toilet goods.....	3,952.7	<sup>2</sup> 2,620.5	<sup>2</sup> 6,530.7	129.5	686.5	85.5	2,866.4
2841	Soap and other detergents.....	1,428.0	1,195.1	2,609.4	49.1	252.3	30.8	1,137.4
2842	Polishes and sanitation goods.....	653.7	444.5	1,090.4	20.0	113.9	16.3	420.4
2843	Surface active agents.....	128.1	165.0	291.4	7.9	40.4	4.1	75.7
2844	Toilet preparations.....	1,742.9	815.9	2,539.5	52.5	279.9	34.3	1,232.9

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
28	CHEMICALS AND ALLIED PRODUCTS--Continued							
2851	Paints and allied products.....	1,704	683	66.7	497.1	36.9	73.8	224.9
2861	Gum and wood chemicals.....	183	41	5.8	23.2	4.6	9.0	23.1
287	Agricultural chemicals.....	1,281	511	53.4	348.9	36.4	74.1	205.5
2871	Fertilizers.....	204	180	20.8	129.4	15.2	32.2	86.4
2872	Fertilizers, mixing only.....	728	212	13.5	70.7	9.0	18.0	37.7
2879	Agricultural chemicals, n.e.c.....	349	119	19.1	148.8	12.2	23.9	81.4
289	Miscellaneous chemical products.....	2,199	625	88.2	625.4	60.0	121.2	364.9
2891	Adhesives and gelatin.....	338	113	9.7	73.9	5.9	12.4	36.1
2892	Explosives.....	92	51	32.6	223.0	24.3	48.0	154.1
2893	Printing ink.....	359	123	9.7	73.6	6.4	13.5	41.0
2895	Carbon black.....	33	29	2.8	22.8	2.3	5.2	18.0
2899	Chemical preparations, n.e.c.....	1,377	309	33.4	232.1	21.1	42.1	115.7
29	PETROLEUM AND COAL PRODUCTS.....	1,886	706	141.7	1,216.2	99.3	202.0	786.2
2911	Petroleum refining.....	438	287	106.7	965.1	75.6	151.6	632.2
295	Paving and roofing materials.....	1,102	293	26.5	186.0	18.9	40.8	124.3
2951	Paving mixtures and blocks.....	877	156	12.4	91.5	8.7	18.3	59.6
2952	Asphalt felts and coatings.....	225	137	14.1	94.5	10.2	22.5	64.7
299	Miscellaneous petroleum and coal products.....	346	126	8.5	65.1	4.8	9.6	29.7
2992	Lubricating oils and greases.....	299	111	7.4	58.2	4.0	7.9	24.5
2999	Petroleum and coal products, n.e.c.....	47	15	1.1	6.9	0.8	1.7	5.2
30	RUBBER AND PLASTICS PRODUCTS, N.E.C.....	6,458	3,119	518.4	3,297.3	411.5	818.3	2,321.7
3011	Tires and inner tubes.....	182	110	92.7	774.5	71.4	136.5	573.8
3021	Rubber footwear.....	64	54	29.5	143.0	26.0	47.3	114.6
3031	Reclaimed rubber.....	24	13	1.7	11.8	1.4	2.5	8.9
3069	Fabricated rubber products, n.e.c.....	1,186	668	140.5	916.6	106.7	213.4	613.7
3079	Miscellaneous plastics products.....	5,002	2,274	254.0	1,451.4	206.0	418.6	1,010.7
31	LEATHER AND LEATHER PRODUCTS.....	3,695	1,973	329.9	1,459.8	294.0	550.6	1,148.0
3111	Leather tanning and finishing.....	520	258	30.7	186.4	26.4	52.8	142.5
3121	Industrial leather belting.....	67	24	2.7	15.9	2.0	4.0	10.4
3131	Footwear cut stock.....	381	191	13.8	60.0	12.3	23.1	46.0
314	Footwear, except rubber.....	1,090	839	212.2	890.0	191.9	355.7	722.4
3141	Shoes, except rubber.....	959	748	200.1	839.2	181.3	336.1	684.6
3142	House slippers.....	131	91	12.1	50.8	10.6	19.6	37.8
3151	Leather gloves and mittens.....	148	72	6.4	22.8	5.7	10.0	18.2
3161	Luggage.....	326	151	21.2	95.6	18.1	33.7	68.2
317	Handbags and personal leather goods.....	797	355	36.8	162.6	32.3	61.3	121.3
3171	Women's handbags and purses.....	499	249	24.0	104.3	21.6	41.5	82.8
3172	Personal leather goods.....	298	106	12.8	58.3	10.7	19.8	38.5
3199	Leather goods, n.e.c.....	366	83	6.1	26.5	5.3	10.0	19.0
32	STONE, CLAY, AND GLASS PRODUCTS.....	15,602	4,921	591.4	3,838.3	470.6	949.9	2,792.5
3211	Flat glass.....	64	39	23.9	196.6	19.8	40.2	157.6
322	Glass and glassware, pressed or blown.....	305	225	109.2	688.4	95.9	191.6	573.9
3221	Glass containers.....	120	112	66.7	426.1	59.4	119.4	362.3
3229	Pressed and blown glass, n.e.c.....	185	113	42.5	262.3	36.5	72.2	211.6
3231	Products of purchased glass.....	890	261	28.5	178.6	23.3	46.1	131.6
3241	Cement, hydraulic.....	197	180	32.4	245.0	26.1	52.2	183.1
325	Structural clay products.....	855	626	60.5	344.6	50.1	101.4	254.2
3251	Brick and structural clay tile.....	484	364	27.5	144.0	23.4	48.0	110.0
3253	Ceramic wall and floor tile.....	80	59	10.6	60.6	8.5	17.6	41.8
3255	Clay refractories.....	146	107	12.6	84.3	10.1	19.2	59.2
3259	Structural clay products, n.e.c.....	145	96	9.8	55.7	8.1	16.6	43.2

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
28	CHEMICALS AND ALLIED PRODUCTS--Continued							
2851	Paints and allied products.....	1,329.6	1,623.2	2,939.8	82.2	430.1	61.3	1,111.7
2861	Gum and wood chemicals.....	99.5	114.8	214.2	20.6	46.1	6.8	100.3
287	Agricultural chemicals.....	1,245.4	<sup>2</sup> 1,904.3	<sup>2</sup> 3,102.0	223.9	573.3	42.9	628.2
2871	Fertilizers.....	440.9	782.0	1,198.5	132.8	240.9	20.0	287.8
2872	Fertilizers, mixing only.....	195.0	528.3	723.3	18.2	129.7	13.8	164.1
2879	Agricultural chemicals, n.e.c.....	609.5	594.0	1,180.2	72.9	202.7	9.1	176.3
289	Miscellaneous chemical products.....	1,592.9	<sup>2</sup> 1,458.3	<sup>2</sup> 3,045.9	133.1	326.3	60.6	1,035.5
2891	Adhesives and gelatin.....	210.6	265.0	473.1	22.0	59.7	8.5	147.0
2892	Explosives.....	374.9	253.7	629.0	21.6	38.4	14.8	165.7
2893	Printing ink.....	166.0	211.3	374.4	7.1	44.6	8.5	125.1
2895	Carbon black.....	101.1	67.4	167.8	23.4	16.5	3.0	91.8
2899	Chemical preparations, n.e.c.....	740.3	660.9	1,401.6	59.0	167.1	25.8	505.9
29	PETROLEUM AND COAL PRODUCTS.....	5,429.2	<sup>2</sup> 16,746.0	<sup>2</sup> 22,041.9	1,000.8	2,023.7	152.5	3,714.3
2911	Petroleum refining.....	4,745.3	15,684.2	20,292.6	956.3	1,899.3	<sup>r</sup> 118.3	<sup>r</sup> 3,138.6
295	Paving and roofing materials.....	458.6	<sup>2</sup> 720.5	<sup>2</sup> 1,181.5	34.2	61.1	24.3	355.6
2951	Paving mixtures and blocks.....	240.7	352.9	593.3	25.4	19.8	9.7	165.6
2952	Asphalt felts and coatings.....	217.9	367.6	588.2	8.8	41.3	14.6	190.0
299	Miscellaneous petroleum and coal products.....	225.3	<sup>2</sup> 341.3	<sup>2</sup> 567.8	10.3	63.3	9.9	220.1
2992	Lubricating oils and greases.....	200.9	285.1	488.0	8.5	53.3	8.4	199.1
2999	Petroleum and coal products, n.e.c.....	24.4	56.2	79.8	1.8	10.0	1.5	21.0
30	RUBBER AND PLASTICS PRODUCTS, N.E.C.....	6,817.3	<sup>2</sup> 5,987.2	<sup>2</sup> 12,789.0	679.9	1,671.8	414.9	4,654.0
3011	Tires and inner tubes.....	1,823.0	1,895.2	3,733.9	198.8	526.0	85.3	1,321.7
3021	Rubber footwear.....	247.2	180.0	428.9	10.3	92.9	29.1	217.0
3031	Reclaimed rubber.....	23.4	19.6	43.8	1.6	5.4	2.0	27.4
3069	Fabricated rubber products, n.e.c.....	1,730.6	1,396.4	3,121.9	134.3	410.0	132.2	1,427.0
3079	Miscellaneous plastics products.....	2,993.1	2,496.0	5,460.5	334.9	637.5	166.3	1,660.9
31	LEATHER AND LEATHER PRODUCTS.....	2,646.0	<sup>2</sup> 2,535.2	<sup>2</sup> 5,183.9	59.7	648.2	327.3	2,078.6
3111	Leather tanning and finishing.....	319.3	546.4	869.5	16.8	135.7	31.4	273.1
3121	Industrial leather belting.....	31.5	21.5	53.8	1.1	7.6	2.9	32.9
3131	Footwear cut stock.....	110.8	152.2	263.2	2.4	25.1	14.3	90.6
314	Footwear, except rubber.....	1,638.9	<sup>2</sup> 1,329.8	<sup>2</sup> 2,971.1	24.3	355.7	212.7	1,279.3
3141	Shoes, except rubber.....	1,548.1	1,246.3	2,797.1	23.1	338.4	201.7	1,214.7
3142	House slippers.....	90.8	83.5	174.0	1.2	17.3	11.0	64.6
3151	Leather gloves and mittens.....	36.6	48.8	87.7	0.8	14.1	7.7	32.2
3161	Luggage.....	185.2	151.3	329.7	8.7	45.2	16.4	112.8
317	Handbags and personal leather goods.....	278.2	<sup>2</sup> 234.4	<sup>2</sup> 512.4	4.2	52.4	36.9	225.0
3171	Women's handbags and purses.....	172.9	153.3	325.7	2.2	26.3	24.5	142.6
3172	Personal leather goods.....	105.3	81.1	186.7	2.0	26.1	12.4	82.4
3199	Leather goods, n.e.c.....	45.5	50.8	96.5	1.4	12.4	5.0	32.7
32	STONE, CLAY, AND GLASS PRODUCTS.....	8,431.3	<sup>2</sup> 6,191.4	<sup>2</sup> 14,604.4	870.6	1,873.1	573.9	7,043.8
3211	Flat glass.....	422.9	194.7	611.3	59.9	93.1	22.8	364.5
322	Glass and glassware, pressed or blown.....	1,502.0	<sup>2</sup> 726.4	<sup>2</sup> 2,240.0	157.4	282.8	98.0	1,101.8
3221	Glass containers.....	842.9	489.1	1,353.1	75.5	154.2	60.0	629.6
3229	Pressed and blown glass, n.e.c.....	659.1	237.3	886.9	81.9	128.6	38.0	472.2
3231	Products of purchased glass.....	388.3	404.1	791.9	21.8	132.5	26.2	309.7
3241	Cement, hydraulic.....	810.0	434.6	1,239.0	105.3	201.0	34.9	785.7
325	Structural clay products.....	612.5	<sup>2</sup> 315.7	<sup>2</sup> 921.8	59.3	191.1	65.0	553.7
3251	Brick and structural clay tile.....	251.1	114.8	361.7	27.1	60.8	28.6	216.5
3253	Ceramic wall and floor tile.....	105.9	54.9	160.5	4.7	35.2	12.8	110.6
3255	Clay refractories.....	151.4	96.7	245.3	17.8	65.2	11.4	118.2
3259	Structural clay products, n.e.c.....	104.1	49.3	154.3	9.7	29.9	12.2	108.4

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
32	STONE, CLAY, AND GLASS PRODUCTS--Continued							
326	Pottery and related products.....	618	229	42.0	242.9	35.7	69.5	188.3
3261	Vitreous plumbing fixtures.....	51	40	8.4	56.5	7.0	13.8	45.7
3262	Vitreous china food utensils.....	39	28	7.0	36.1	6.0	11.2	27.3
3263	Fine earthenware food utensils.....	21	17	5.9	27.5	5.3	9.8	22.6
3264	Porcelain electrical supplies.....	74	50	13.4	89.9	11.0	22.2	67.5
3269	Pottery products, n.e.c.....	433	94	7.3	32.9	6.4	12.5	25.2
327	Concrete, gypsum, and plaster products.....	10,016	2,454	169.7	1,106.0	123.1	255.8	720.3
3271	Concrete block and brick.....	1,602	352	21.4	132.1	14.8	31.1	78.1
3272	Concrete products, n.e.c.....	3,414	801	56.2	347.7	45.0	93.3	245.3
3273	Ready-mixed concrete.....	4,767	1,152	75.3	512.9	49.8	101.9	311.4
3274	Lime.....	116	71	6.8	42.6	5.7	12.0	33.4
3275	Gypsum products.....	117	78	10.0	70.7	7.8	17.5	52.1
3281	Cut stone and stone products.....	810	195	16.3	89.5	13.9	27.8	69.8
329	Miscellaneous nonmetallic mineral products.....	1,847	712	108.9	746.7	82.7	165.3	513.7
3291	Abrasive products.....	362	166	30.1	218.3	21.2	40.0	134.1
3292	Asbestos products.....	139	100	21.4	144.3	16.9	35.1	107.8
3293	Gaskets and insulations.....	300	122	18.5	116.2	14.0	27.7	76.4
3295	Minerals, ground or treated.....	509	134	9.0	60.2	7.1	14.6	42.5
3296	Mineral wool.....	114	72	14.7	104.7	11.8	24.8	82.2
3297	Nonclay refractories.....	92	64	9.9	72.1	7.4	14.8	49.5
3299	Nonmetallic mineral products, n.e.c.....	331	54	5.3	30.9	4.3	8.3	21.2
33	PRIMARY METAL INDUSTRIES.....	6,821	4,072	1,279.3	9,846.8	1,041.5	2,083.2	7,459.5
331	Blast furnace and basic steel products.....	854	666	615.7	5,013.6	499.5	975.4	3,826.6
3312	Blast furnaces and steel mills.....	322	253	532.6	4,385.0	433.5	841.0	3,370.9
3313	Electrometallurgical products.....	35	32	10.4	78.9	8.5	17.2	58.7
3315	Steel wire and related products.....	240	170	27.4	196.3	21.7	44.2	139.4
3316	Cold finishing of steel shapes.....	106	85	18.3	145.8	14.0	28.0	102.3
3317	Steel pipe and tubes.....	151	126	27.0	207.6	21.8	45.0	155.3
332	Iron and steel foundries.....	1,444	1,100	234.5	1,653.0	200.9	405.7	1,317.9
3321	Gray iron foundries.....	1,063	775	140.1	983.4	121.6	246.2	795.8
3322	Malleable iron foundries.....	82	76	23.9	172.3	20.0	40.3	135.0
3323	Steel foundries.....	299	249	70.5	497.3	59.3	119.2	387.1
333	Primary nonferrous metals.....	142	120	53.4	404.9	42.2	85.8	300.4
3331	Primary copper.....	32	32	11.7	80.8	9.2	18.5	61.1
3332	Primary lead.....	18	18	2.7	18.9	2.1	4.3	13.3
3333	Primary zinc.....	18	18	8.1	57.7	6.5	13.5	42.9
3334	Primary aluminum.....	25	24	23.8	190.9	19.2	38.4	145.2
3339	Primary nonferrous metals, n.e.c.....	49	28	7.1	56.6	5.2	11.1	37.9
3341	Secondary nonferrous metals.....	403	185	17.3	123.8	12.9	26.8	79.1
335	Nonferrous rolling and drawing.....	820	612	192.3	1,423.8	149.2	308.7	1,016.4
3351	Copper rolling and drawing.....	126	108	40.3	294.0	32.3	63.6	219.1
3352	Aluminum rolling and drawing.....	216	162	61.3	477.6	48.6	100.7	353.6
3356	Nonferrous rolling and drawing, n.e.c.....	139	72	20.9	159.6	14.6	30.2	97.7
3357	Nonferrous wire drawing and insulating.....	339	270	69.8	492.6	53.7	114.2	346.0
336	Nonferrous foundries.....	1,886	797	89.3	606.7	75.6	154.3	462.3
3361	Aluminum castings.....	997	416	46.7	323.1	40.1	81.6	252.1
3362	Brass, bronze, and copper castings.....	532	205	17.7	118.1	14.8	30.2	88.0
3369	Nonferrous castings, n.e.c.....	357	176	24.9	165.5	20.7	42.5	122.2
339	Miscellaneous primary metal products.....	1,272	592	76.8	621.0	61.2	126.5	456.8
3391	Iron and steel forgings.....	270	188	40.9	344.0	33.1	66.7	264.2
3392	Nonferrous forgings.....	42	32	11.0	95.5	8.2	18.1	66.9
3399	Primary metal products, n.e.c.....	960	372	24.9	181.5	19.9	41.7	125.7
34	FABRICATED METAL PRODUCTS.....	27,413	10,738	1,340.5	9,310.4	1,056.9	2,150.5	6,536.0
3411	Metal cans.....	300	242	60.4	475.8	52.4	113.0	394.6
342	Cutlery, handtools, and hardware.....	1,941	857	157.0	1,046.5	124.9	251.3	745.5
3421	Cutlery.....	145	69	13.0	80.1	10.4	20.5	54.5
3423	Hand and edge tools, n.e.c.....	669	254	37.6	241.9	30.1	60.8	172.2
3425	Handsaws and saw blades.....	84	48	6.1	42.4	4.7	9.8	28.8
3429	Hardware, n.e.c.....	1,043	486	100.3	682.1	79.7	160.2	490.0
343	Plumbing and heating, except electric.....	839	387	64.0	421.7	47.8	95.2	275.0
3431	Metal sanitary ware.....	93	53	10.4	73.2	8.4	17.0	55.2
3432	Plumbing fittings and brass goods.....	215	91	14.7	94.0	11.6	23.1	65.3
3433	Heating equipment, except electric.....	531	243	38.9	254.5	27.8	55.1	154.5

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
32	STONE, CLAY, AND GLASS PRODUCTS--Continued							
326	Pottery and related products.....	412.2	<sup>2</sup> 183.4	<sup>2</sup> 589.7	29.4	96.4	42.2	337.1
3261	Vitreous plumbing fixtures.....	111.4	58.5	170.0	2.6	26.5	9.3	101.5
3262	Vitreous china food utensils.....	55.8	12.7	67.2	1.9	15.1	6.3	42.5
3263	Fine earthenware food utensils.....	34.6	12.4	47.1	1.0	10.1	7.3	41.0
3264	Porcelain electrical supplies.....	153.5	76.0	225.0	21.4	35.6	10.2	90.0
3269	Pottery products, n.e.c.....	56.9	23.8	80.4	2.5	9.1	9.1	62.1
327	Concrete, gypsum, and plaster products.....	2,475.5	<sup>2</sup> 2,540.2	<sup>2</sup> 5,006.8	271.7	362.2	165.9	2,122.3
3271	Concrete block and brick.....	277.4	278.7	556.0	30.7	61.5	23.8	245.5
3272	Concrete products, n.e.c.....	715.7	481.5	1,187.5	73.1	157.5	52.3	540.0
3273	Ready-mixed concrete.....	1,155.5	1,543.2	2,697.9	137.3	88.2	71.5	982.0
3274	Lime.....	100.1	76.8	176.5	17.7	15.8	6.8	95.1
3275	Gypsum products.....	226.8	160.0	388.9	12.9	39.2	11.5	259.7
3281	Cut stone and stone products.....	146.4	88.5	237.2	6.1	30.4	18.3	131.5
329	Miscellaneous nonmetallic mineral products.....	1,661.5	<sup>2</sup> 1,303.8	<sup>2</sup> 2,966.7	159.7	483.6	100.6	1,337.5
3291	Abrasive products.....	538.8	362.2	902.1	47.8	156.1	28.2	416.4
3292	Asbestos products.....	308.9	264.6	576.5	18.9	111.0	19.5	269.1
3293	Gaskets and insulations.....	205.2	148.6	350.8	13.5	54.0	16.8	160.7
3295	Minerals, ground or treated.....	147.9	132.6	279.5	29.6	28.9	7.3	102.1
3296	Mineral wool.....	244.7	201.5	449.1	27.1	34.5	14.7	206.8
3297	Nonclay refractories.....	158.8	150.4	308.0	20.6	87.4	8.6	129.1
3299	Nonmetallic mineral products, n.e.c.....	57.2	43.9	100.7	2.2	11.7	5.5	53.3
33	PRIMARY METAL INDUSTRIES.....	19,974.7	<sup>2</sup> 27,024.8	<sup>2</sup> 46,549.7	3,034.8	7,982.2	1,126.4	15,261.1
331	Blast furnace and basic steel products.....	10,122.4	<sup>2</sup> 13,162.1	<sup>2</sup> 22,952.1	1,813.3	4,592.3	568.8	8,617.2
3312	Blast furnaces and steel mills.....	8,880.4	10,876.7	19,480.2	1,658.4	3,929.2	500.5	7,699.5
3313	Electrometallurgical products.....	191.2	299.0	468.2	29.3	113.8	10.4	145.5
3315	Steel wire and related products.....	385.1	465.0	842.3	57.1	161.6	21.3	253.0
3316	Cold finishing of steel shapes.....	253.6	767.4	1,013.1	30.8	183.1	13.7	224.0
3317	Steel pipe and tubes.....	412.1	754.0	1,148.3	37.7	204.6	22.9	295.2
332	Iron and steel foundries.....	2,649.8	<sup>2</sup> 1,642.2	<sup>2</sup> 4,318.2	278.6	412.5	199.6	1,960.0
3321	Gray iron foundries.....	1,579.1	1,096.8	2,695.2	196.9	241.6	120.5	1,168.5
3322	Malleable iron foundries.....	267.2	124.1	389.9	21.4	28.5	22.3	204.6
3323	Steel foundries.....	803.5	421.3	1,233.1	60.3	142.4	56.8	586.9
333	Primary nonferrous metals.....	1,413.3	<sup>2</sup> 2,334.7	<sup>2</sup> 3,655.1	255.1	593.9	48.8	1,012.6
3331	Primary copper.....	296.9	<sup>2</sup> 844.4	<sup>2</sup> 1,127.3	51.7	191.4	14.9	285.5
3332	Primary lead.....	48.3	<sup>2</sup> 270.8	<sup>2</sup> 304.0	3.4	93.5	2.6	24.9
3333	Primary zinc.....	118.6	220.8	332.8	25.8	59.5	8.1	98.8
3334	Primary aluminum.....	811.8	841.6	1,608.7	151.7	176.7	18.1	499.6
3339	Primary nonferrous metals, n.e.c.....	137.7	157.1	282.3	22.5	72.8	5.1	103.8
3341	Secondary nonferrous metals.....	275.8	1,342.3	1,619.0	41.2	180.4	15.4	228.2
335	Nonferrous rolling and drawing.....	3,300.6	<sup>2</sup> 6,625.2	<sup>2</sup> 9,876.8	465.7	1,708.3	167.0	2,127.7
3351	Copper rolling and drawing.....	703.7	1,658.7	2,390.7	68.0	276.5	38.9	478.4
3352	Aluminum rolling and drawing.....	936.5	2,054.2	2,952.8	146.0	605.1	54.3	721.2
3356	Nonferrous rolling and drawing, n.e.c.....	346.5	626.6	969.2	57.1	257.3	17.4	250.6
3357	Nonferrous wire drawing and insulating.....	1,313.9	2,285.7	3,564.1	194.6	569.4	56.4	677.5
336	Nonferrous foundries.....	1,065.5	<sup>2</sup> 856.5	<sup>2</sup> 1,919.7	69.2	171.6	69.2	656.5
3361	Aluminum castings.....	546.3	421.3	965.7	39.5	72.2	36.2	343.9
3362	Brass, bronze, and copper castings.....	223.2	214.3	438.0	12.4	52.1	15.3	144.1
3369	Nonferrous castings, n.e.c.....	296.0	220.9	516.0	17.3	47.3	17.7	168.5
339	Miscellaneous primary metal products.....	1,147.3	<sup>2</sup> 1,061.8	<sup>2</sup> 2,208.8	111.7	323.2	57.6	658.9
3391	Iron and steel forgings.....	601.9	654.8	1,254.5	44.8	198.7	36.3	395.3
3392	Nonferrous forgings.....	166.2	194.7	365.6	33.4	75.9	6.3	71.4
3399	Primary metal products, n.e.c.....	379.2	212.3	588.7	33.5	48.6	15.0	192.2
34	FABRICATED METAL PRODUCTS.....	17,928.6	<sup>2</sup> 16,625.7	<sup>2</sup> 34,397.8	1,111.4	5,646.5	1,131.1	12,691.1
3411	Metal cans.....	1,146.1	1,792.8	2,901.5	100.1	451.6	53.2	830.5
342	Cutlery, handtools, and hardware.....	2,319.5	<sup>2</sup> 1,434.7	<sup>2</sup> 3,722.3	121.3	666.8	136.5	1,707.6
3421	Cutlery.....	275.0	104.7	377.2	11.5	63.1	11.8	214.0
3423	Hand and edge tools, n.e.c.....	521.9	322.2	836.3	23.8	182.5	31.5	364.3
3425	Handsaws and saw blades.....	94.9	56.6	150.4	3.8	34.3	5.1	65.6
3429	Hardware, n.e.c.....	1,427.7	951.2	2,358.4	82.2	386.9	88.1	1,063.7
343	Plumbing and heating, except electric.....	859.6	<sup>2</sup> 845.6	<sup>2</sup> 1,705.7	40.7	361.8	68.1	790.4
3431	Metal sanitary ware.....	143.8	112.1	257.2	7.9	47.5	11.0	139.9
3432	Plumbing fittings and brass goods.....	186.8	220.3	410.9	8.2	90.5	15.1	154.8
3433	Heating equipment, except electric.....	529.0	513.2	1,037.6	24.6	223.8	42.0	495.7

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
34	FABRICATED METAL PRODUCTS--Continued							
344	Fabricated structural metal products.....	10,165	3,715	389.6	2,703.4	294.0	594.3	1,788.4
3441	Fabricated structural steel.....	1,962	1,036	108.9	785.8	81.1	165.3	517.2
3442	Metal doors, sash, and trim.....	1,652	605	65.5	388.3	49.1	97.3	242.6
3443	Fabricated platework (boiler shops).....	1,468	787	95.6	696.3	72.6	150.1	475.3
3444	Sheet metalwork.....	3,058	812	68.9	494.8	53.6	106.7	337.7
3446	Architectural metalwork.....	1,374	195	17.3	110.7	13.7	26.2	72.1
3449	Miscellaneous metalwork.....	651	280	33.4	227.5	23.9	48.7	143.5
345	Screw machine products, bolts, etc.....	2,535	1,076	115.9	845.9	93.6	197.1	604.9
3451	Screw machine products.....	1,875	684	49.3	351.4	41.8	89.0	260.3
3452	Bolts, nuts, rivets, and washers.....	660	392	66.6	494.5	51.8	108.1	344.6
3461	Metal stampings <sup>11</sup> .....	2,702	1,343	224.8	1,675.1	186.0	377.8	1,264.0
347	Metal services, n.e.c.....	4,674	1,199	80.9	477.8	68.9	136.6	353.1
3471	Plating and polishing.....	3,235	853	54.7	320.8	46.5	91.8	237.2
3479	Metal coating and allied services.....	1,439	346	26.2	157.0	22.4	44.8	115.9
3481	Miscellaneous fabricated wire products.....	1,555	616	61.2	369.8	50.2	100.9	262.0
349	Miscellaneous fabricated metal products.....	2,702	1,303	186.7	1,294.4	139.1	284.3	848.5
3491	Metal barrels, drums, and pails.....	149	95	11.6	83.2	9.1	19.4	59.8
3492	Safes and vaults.....	32	18	3.8	26.6	2.6	4.9	16.4
3493	Steel springs.....	112	60	7.6	54.3	6.1	12.4	39.3
3494	Valves and pipe fittings.....	663	409	94.2	676.5	67.1	137.5	425.8
3496	Collapsible tubes.....	19	18	4.3	23.6	3.9	7.6	18.7
3497	Metal foil and leaf.....	72	46	6.6	48.7	4.8	10.3	31.1
3498	Fabricated pipe and fittings.....	390	194	17.7	124.5	13.0	26.7	83.3
3499	Fabricated metal products, n.e.c.....	1,265	463	40.9	257.0	32.5	65.5	174.1
35	MACHINERY, EXCEPT ELECTRICAL.....	37,743	10,571	1,857.9	14,173.7	1,344.5	2,777.3	9,200.5
351	Engines and turbines.....	180	117	99.3	816.3	71.7	146.3	538.5
3511	Steam engines and turbines.....	27	23	36.2	318.9	24.6	49.9	195.7
3519	Internal combustion engines, n.e.c.....	153	94	63.1	497.4	47.1	96.4	342.8
3522	Farm machinery.....	1,615	659	134.2	931.3	102.4	199.8	650.6
353	Construction and related machinery.....	2,283	1,135	271.1	2,029.8	189.2	380.5	1,284.3
3531	Construction machinery.....	646	358	133.8	995.4	99.2	195.0	677.7
3532	Mining machinery.....	211	110	21.7	156.3	14.9	29.6	95.4
3533	Oilfield machinery.....	356	170	31.6	232.4	21.0	44.2	138.2
3534	Elevators and moving stairways <sup>12</sup> .....	138	74	13.8	106.2	8.8	18.0	63.0
3535	Conveyors and conveying equipment.....	445	215	27.4	211.8	16.7	34.9	110.8
3536	Hoists, cranes, and monorails.....	140	70	16.1	129.4	11.1	23.0	84.4
3537	Industrial trucks and tractors.....	347	138	26.7	198.3	17.5	35.8	114.8
354	Metalworking machinery.....	9,402	2,636	334.2	2,833.4	254.0	556.1	1,966.5
3541	Machine tools, metal-cutting types.....	897	333	86.9	757.3	60.3	131.5	475.1
3542	Machine tools, metal-forming types.....	348	167	28.9	247.4	20.7	45.7	163.7
3544	Special dies, tools, jigs, and fixtures.....	6,590	1,523	111.6	1,013.1	94.0	213.6	785.6
3545	Machine tool accessories.....	1,134	426	59.8	475.7	44.8	95.5	321.8
3548	Metalworking machinery, n.e.c.....	433	187	47.0	339.9	34.2	69.8	220.3
355	Special industry machinery.....	3,289	1,353	206.8	1,575.2	140.5	295.2	947.0
3551	Food products machinery.....	639	279	32.3	248.6	21.8	45.0	146.6
3552	Textile machinery.....	557	238	39.6	252.3	29.3	62.2	168.4
3553	Woodworking machinery.....	238	87	12.6	83.7	8.7	17.6	50.3
3554	Paper industries machinery.....	218	108	21.6	175.1	14.6	31.2	111.9
3555	Printing trades machinery.....	519	164	29.1	239.2	20.1	42.1	148.8
3559	Special industry machinery, n.e.c.....	1,118	477	71.6	576.3	46.0	97.1	321.0
356	General industrial machinery.....	3,768	1,439	278.9	2,132.8	196.7	410.4	1,354.5
3561	Pumps and compressors.....	663	301	78.7	591.7	50.2	105.3	336.8
3562	Ball and roller bearings.....	126	99	59.1	457.9	47.6	101.2	344.8
3564	Blowers and fans.....	289	131	21.6	152.7	15.5	32.6	96.1
3565	Industrial patterns.....	1,163	141	10.9	106.5	9.5	19.4	87.0
3566	Power transmission equipment.....	513	303	54.3	407.0	40.3	82.9	272.7
3567	Industrial furnaces and ovens.....	256	118	15.0	122.0	8.1	16.7	53.6
3569	General industrial machinery, n.e.c.....	758	346	39.3	295.0	25.5	52.3	163.5
357	Office and computing machines.....	588	316	189.6	1,455.9	119.1	236.1	754.2
3572	Typewriters.....	25	17	26.0	172.3	19.9	39.3	116.7
3573	Electronic computing equipment.....	175	139	98.2	798.3	50.3	103.5	312.6
3574	Calculating and accounting machines.....	138	51	38.4	294.4	31.3	58.6	219.7
3576	Scales and balances.....	76	34	6.5	45.6	4.3	8.5	24.0
3579	Office machines, n.e.c.....	174	75	20.5	145.3	13.3	26.2	81.2

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures new <sup>1</sup>	End-of-year inventories	All employees	Value added by manufacture
		(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
34	FABRICATED METAL PRODUCTS--Continued							
344	Fabricated structural metal products.....	4,874.1	<sup>2</sup> 5,470.7	<sup>2</sup> 10,350.5	260.8	1,826.6	325.5	3,219.9
3441	Fabricated structural steel.....	1,327.5	1,640.5	2,996.1	77.8	606.6	85.4	814.8
3442	Metal doors, sash, and trim.....	660.9	768.0	1,426.6	24.3	210.0	62.8	570.4
3443	Fabricated platework (boiler shops).....	1,312.2	1,301.5	2,603.5	83.1	513.9	75.0	770.1
3444	Sheet metalwork.....	897.1	936.7	1,830.4	45.6	261.2	61.7	632.4
3446	Architectural metalwork.....	213.5	180.3	391.9	6.5	50.5	15.6	148.8
3449	Miscellaneous metalwork.....	462.9	643.7	1,102.0	23.5	184.4	25.0	283.4
345	Screw machine products, bolts, etc.....	1,619.6	<sup>2</sup> 1,067.2	<sup>2</sup> 2,655.9	117.4	409.9	94.5	1,054.3
3451	Screw machine products.....	652.0	382.2	1,028.1	50.0	95.5	36.9	359.0
3452	Bolts, nuts, rivets, and washers.....	967.6	685.0	1,627.8	67.4	314.4	57.6	695.3
3461	Metal stampings <sup>11</sup> .....	3,005.3	2,850.9	5,844.8	192.0	696.4	182.2	2,280.7
347	Metal services, n.e.c.....	861.8	<sup>2</sup> 398.4	<sup>2</sup> 1,255.6	54.4	71.9	65.7	554.7
3471	Plating and polishing.....	574.8	216.7	789.8	32.8	36.9	45.0	370.2
3479	Metal coating and allied services.....	287.0	181.7	465.8	21.6	35.0	20.7	184.5
3481	Miscellaneous fabricated wire products.....	685.0	561.2	1,244.3	38.9	177.3	55.5	539.1
349	Miscellaneous fabricated metal products.....	2,557.6	<sup>2</sup> 2,204.2	<sup>2</sup> 4,717.2	185.8	984.2	149.9	1,713.9
3491	Metal barrels, drums, and pails.....	150.1	220.8	369.5	15.3	56.9	10.5	119.6
3492	Safes and vaults.....	67.1	33.5	98.7	3.1	21.4	3.3	56.2
3493	Steel springs.....	100.1	116.1	216.6	6.0	33.9	6.3	69.3
3494	Valves and pipe fittings.....	1,354.4	926.6	2,248.1	97.2	584.0	80.4	942.7
3496	Collapsible tubes.....	38.5	26.8	65.0	4.1	6.2	4.0	30.6
3497	Metal foil and leaf.....	105.9	160.0	266.5	10.5	37.4	4.1	51.6
3498	Fabricated pipe and fittings.....	235.8	265.0	495.2	14.8	100.6	13.0	144.6
3499	Fabricated metal products, n.e.c.....	505.7	455.4	957.6	34.8	143.8	28.3	299.3
35	MACHINERY, EXCEPT ELECTRICAL.....	27,724.6	<sup>2</sup> 21,211.4	<sup>2</sup> 48,357.2	1,882.3	10,947.9	1,459.6	17,495.4
351	Engines and turbines.....	1,590.9	<sup>2</sup> 1,560.3	<sup>2</sup> 3,122.5	163.6	724.1	86.6	1,113.5
3511	Steam engines and turbines.....	582.8	475.0	1,043.2	66.2	314.2	30.9	379.9
3519	Internal combustion engines, n.e.c.....	1,008.1	1,085.3	2,079.3	97.4	409.9	55.7	733.6
3522	Farm machinery.....	2,016.0	2,280.8	4,231.8	127.2	985.4	112.6	1,328.4
353	Construction and related machinery.....	4,108.3	<sup>2</sup> 3,796.3	<sup>2</sup> 7,858.6	282.7	1,979.7	211.0	2,732.3
3531	Construction machinery.....	2,071.1	2,140.3	4,188.8	187.3	1,049.3	104.5	1,301.3
3532	Mining machinery.....	306.0	313.4	622.0	18.9	171.5	16.9	215.4
3533	Oilfield machinery.....	489.3	292.6	775.4	23.1	247.9	29.2	398.2
3534	Elevators and moving stairways <sup>12</sup> .....	<sup>12</sup> 193.9	127.5	<sup>12</sup> 316.5	3.9	96.3	12.4	201.5
3535	Conveyors and conveying equipment.....	413.6	349.2	756.9	13.7	128.8	20.8	270.5
3536	Hoists, cranes, and monorails.....	231.3	196.0	430.7	10.5	91.4	9.6	112.3
3537	Industrial trucks and tractors.....	403.1	377.3	768.3	25.3	194.5	17.6	233.1
354	Metalworking machinery.....	5,044.7	<sup>2</sup> 2,510.2	<sup>2</sup> 7,442.0	318.2	1,586.6	259.1	3,037.6
3541	Machine tools, metal-cutting types.....	1,389.4	767.4	2,127.5	78.9	535.4	61.1	699.3
3542	Machine tools, metal-forming types.....	429.9	286.2	698.6	24.7	202.6	22.1	281.3
3544	Special dies, tools, jigs, and fixtures.....	1,608.9	561.7	2,151.1	113.1	240.2	90.9	1,029.3
3545	Machine tool accessories.....	916.7	413.2	1,300.2	54.7	272.1	47.0	559.3
3548	Metalworking machinery, n.e.c.....	699.8	481.7	1,164.6	46.8	336.3	38.0	468.4
355	Special industry machinery.....	2,865.9	<sup>2</sup> 2,164.2	<sup>2</sup> 4,962.2	178.3	1,250.3	171.6	1,917.2
3551	Food products machinery.....	499.5	336.0	824.8	21.9	197.7	31.7	380.4
3552	Textile machinery.....	404.9	308.9	712.5	22.2	185.3	36.0	314.2
3553	Woodworking machinery.....	190.8	128.0	314.0	8.2	70.7	12.1	147.0
3554	Paper industries machinery.....	285.9	270.7	560.0	19.1	136.8	18.6	217.5
3555	Printing trades machinery.....	458.0	324.1	750.9	32.9	217.5	23.0	285.9
3559	Special industry machinery, n.e.c.....	1,026.8	796.5	1,800.0	74.0	442.3	50.2	572.2
356	General industrial machinery.....	4,107.3	<sup>2</sup> 2,909.7	<sup>2</sup> 6,930.8	296.4	1,552.8	233.1	2,812.7
3561	Pumps and compressors.....	1,216.8	1,040.7	2,224.4	63.4	592.1	61.3	768.8
3562	Ball and roller bearings.....	839.5	512.0	1,335.7	107.8	318.8	52.3	627.7
3564	Blowers and fans.....	305.0	225.1	530.2	14.4	84.7	15.2	180.8
3565	Industrial patterns.....	166.1	37.4	202.9	8.1	12.7	9.9	112.6
3566	Power transmission equipment.....	795.6	481.3	1,256.8	56.9	286.0	46.7	555.7
3567	Industrial furnaces and ovens.....	244.5	230.6	472.7	15.2	63.1	12.1	143.0
3569	General industrial machinery, n.e.c.....	539.8	382.6	908.1	30.6	195.4	35.6	424.1
357	Office and computing machines.....	3,324.3	<sup>2</sup> 2,465.5	<sup>2</sup> 5,717.3	192.3	1,474.6	137.2	1,818.4
3572	Typewriters.....	455.0	155.3	596.0	20.1	114.0	18.0	243.2
3573	Electronic computing equipment.....	1,920.7	1,869.6	3,760.8	116.6	980.8	96.4	<sup>1</sup> 1,286.1
3574	Calculating and accounting machines.....	518.2	198.2	707.8	32.6	206.8		
3576	Scales and balances.....	90.0	51.3	140.2	5.1	36.1	5.8	64.4
3579	Office machines, n.e.c.....	340.4	191.1	512.5	17.9	136.9	17.0	224.7

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

		1967						
Code	Industry group and industry	Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
35	MACHINERY, EXCEPT ELECTRICAL--Continued							
358	Service industry machines.....	1,570	678	141.6	959.6	102.4	206.3	614.5
3581	Automatic merchandising machines.....	150	56	10.0	59.2	7.8	14.8	39.6
3582	Commercial laundry equipment.....	117	54	7.5	50.9	5.4	11.2	32.5
3585	Refrigeration machinery.....	681	359	97.6	660.1	71.8	145.2	438.7
3586	Measuring and dispensing pumps.....	48	23	6.4	45.5	4.3	8.9	25.0
3589	Service industry machines, n.e.c.....	574	186	20.1	143.9	13.1	26.2	78.7
3599	Miscellaneous machinery, except electrical <sup>13</sup> .....	15,048	2,238	202.2	1,439.4	168.5	346.6	1,090.4
36	ELECTRICAL EQUIPMENT AND SUPPLIES.....	10,753	5,612	1,897.1	13,129.0	1,338.5	2,643.8	7,683.6
361	Electric test and distributing equipment.....	1,215	676	178.5	1,251.4	126.3	251.9	751.5
3611	Electric measuring instruments.....	540	269	62.4	431.0	41.2	80.2	228.3
3612	Transformers.....	194	126	47.6	331.6	35.6	71.5	219.1
3613	Switchgear and switchboard apparatus.....	481	281	68.5	488.8	49.5	100.2	304.1
362	Electrical industrial apparatus.....	1,317	705	208.2	1,427.7	153.8	309.6	928.8
3621	Motors and generators.....	406	275	110.3	750.4	83.5	168.9	504.7
3622	Industrial controls.....	477	170	50.9	354.7	35.0	70.0	211.7
3623	Welding apparatus.....	149	94	14.0	120.7	9.6	20.2	74.5
3624	Carbon and graphite products.....	65	42	11.9	82.8	9.1	18.5	57.8
3629	Electrical industrial apparatus, n.e.c.....	220	124	21.1	119.1	16.6	32.0	80.1
363	Household appliances.....	640	339	168.2	1,088.9	134.1	261.0	778.5
3631	Household cooking equipment.....	73	49	20.2	127.9	15.9	32.4	88.4
3632	Household refrigerators and freezers.....	35	24	50.0	357.8	41.3	79.4	273.5
3633	Household laundry equipment.....	35	28	22.2	154.2	17.8	33.7	113.9
3634	Electric housewares and fans.....	289	142	45.0	241.8	35.9	69.8	163.0
3635	Household vacuum cleaners.....	34	17	10.0	62.3	7.6	14.2	42.3
3636	Sewing machines.....	86	21	6.4	49.3	4.9	9.7	34.7
3639	Household appliances, n.e.c.....	88	58	14.4	95.6	10.7	21.8	62.7
364	Electric lighting and wiring equipment.....	1,882	892	160.6	967.0	126.2	248.8	656.4
3641	Electric lamps.....	106	65	29.5	169.9	25.8	49.9	136.0
3642	Lighting fixtures.....	1,215	526	64.9	389.6	50.2	99.2	253.8
3643	Current-carrying wiring devices.....	387	196	43.0	248.8	33.2	65.5	164.5
3644	Noncurrent-carrying wiring devices.....	174	105	23.2	158.7	17.0	34.2	102.1
365	Radio and TV receiving equipment.....	660	260	129.6	715.8	106.7	204.5	514.0
3651	Radio and TV receiving sets.....	341	189	116.2	640.0	95.8	182.5	460.5
3652	Phonograph records.....	319	71	13.4	75.8	10.9	22.0	53.5
366	Communication equipment.....	1,413	853	536.9	4,501.5	310.8	620.4	2,090.9
3661	Telephone and telegraph apparatus.....	107	64	116.6	837.1	84.0	160.3	539.5
3662	Radio and TV communication equipment.....	1,306	789	420.3	3,664.4	226.8	460.1	1,551.4
367	Electronic components and accessories.....	2,456	1,427	408.1	2,462.6	296.5	582.6	1,464.5
3671	Electron tubes, receiving type.....	40	20	21.2	119.5	18.1	32.8	86.8
3672	Cathode ray picture tubes.....	100	24	27.7	173.1	20.0	40.1	107.9
3673	Electron tubes, transmitting.....	57	39	18.4	147.8	12.7	26.2	84.4
3674	Semiconductors.....	180	121	86.5	551.1	58.3	119.0	309.5
3679	Electronic components, n.e.c.....	2,079	1,223	254.3	1,471.1	187.4	364.5	875.9
369	Miscellaneous electrical equipment and supplies.....	1,170	460	107.0	714.1	84.1	165.0	499.0
3691	Storage batteries.....	233	120	19.3	133.3	15.8	30.6	97.7
3692	Primary batteries, dry and wet.....	50	36	11.0	61.0	8.9	17.6	43.2
3693	X-ray apparatus and tubes.....	82	41	7.9	63.2	4.3	8.7	26.3
3694	Engine electrical equipment.....	265	133	54.9	385.0	43.8	85.7	285.3
3699	Electrical equipment, n.e.c.....	540	130	13.9	71.6	11.3	22.4	46.5
37	TRANSPORTATION EQUIPMENT.....	7,439	3,325	1,824.3	15,061.9	1,330.6	2,731.7	9,858.8
371	Motor vehicles and equipment.....	2,652	1,272	742.7	5,953.4	608.4	1,223.4	4,606.9
3711	Motor vehicles <sup>11</sup> .....			320.2	2,690.2	261.6	522.4	2,091.5
3712	Passenger car bodies <sup>11</sup> .....	171	128					
3714	Motor vehicle parts and accessories <sup>11</sup> .....	1,677	789	369.2	2,923.2	303.9	616.1	2,270.7
3713	Truck and bus bodies.....	629	248	30.4	192.8	24.6	49.3	139.5
3715	Truck trailers.....	175	107	22.9	147.2	18.3	35.6	105.2
372	Aircraft and parts.....	1,265	825	791.2	7,092.3	482.5	1,032.3	3,727.6
3721	Aircraft <sup>15</sup> .....	123	81	386.9	3,568.1	230.7	489.6	1,807.6
3722	Aircraft engines and engine parts.....	256	203	193.4	1,761.6	111.9	244.0	870.3
3723	Aircraft propellers and parts.....							
3729	Aircraft equipment, n.e.c. <sup>14</sup> .....	886	541	210.9	1,762.6	139.9	298.7	1,049.7

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
35	MACHINERY, EXCEPT ELECTRICAL—Continued							
358	Service industry machines.....	2,141.7	<sup>2</sup> 2,331.9	<sup>2</sup> 4,390.6	145.0	1,024.0	112.6	1,369.0
3581	Automatic merchandising machines.....	140.8	122.5	248.0	5.5	81.6	11.7	121.4
3582	Commercial laundry equipment.....	96.4	85.9	183.0	4.9	41.6	6.5	70.8
3585	Refrigeration machinery.....	1,506.1	<sup>2</sup> 1,760.9	<sup>2</sup> 3,207.5	120.2	745.0	72.3	892.7
3586	Measuring and dispensing pumps.....	96.6	80.6	174.3	3.8	43.6	6.8	91.7
3589	Service industry machines, n.e.c.....	301.8	282.0	577.8	10.6	112.2	15.3	192.4
3599	Miscellaneous machinery, except electrical <sup>13</sup> .....	2,525.5	1,192.5	3,701.4	178.6	370.4	135.8	1,366.3
36	ELECTRICAL EQUIPMENT AND SUPPLIES.....	24,844.7	<sup>2</sup> 19,580.7	<sup>2</sup> 43,896.4	1,562.2	8,599.6	1,511.6	17,010.5
361	Electric test and distributing equipment.....	2,556.1	<sup>2</sup> 1,630.8	<sup>2</sup> 4,139.6	146.9	884.9	132.1	1,534.6
3611	Electric measuring instruments.....	809.5	399.5	1,196.5	54.1	297.4	44.7	505.3
3612	Transformers.....	719.8	561.4	1,257.1	54.0	248.5	33.4	381.5
3613	Switchgear and switchboard apparatus.....	1,026.8	669.9	1,686.0	38.8	339.0	54.0	647.8
362	Electrical industrial apparatus.....	2,792.2	<sup>2</sup> 1,870.5	<sup>2</sup> 4,630.5	207.3	921.4	160.8	1,889.1
3621	Motors and generators.....	1,406.0	962.4	2,363.6	100.8	443.3	94.2	993.2
3622	Industrial controls.....	722.8	390.1	1,106.1	34.9	227.5	33.0	450.5
3623	Welding apparatus.....	258.3	237.4	485.4	18.2	99.9	9.6	162.4
3624	Carbon and graphite products.....	186.3	117.8	296.4	41.3	69.4	10.0	141.4
3629	Electrical industrial apparatus, n.e.c.....	218.8	162.8	379.0	12.1	81.3	14.0	141.6
363	Household appliances.....	2,543.4	<sup>2</sup> 2,762.7	<sup>2</sup> 5,278.7	118.0	977.7	145.8	2,097.9
3631	Household cooking equipment.....	254.0	291.6	549.7	8.6	107.0	19.2	230.3
3632	Household refrigerators and freezers.....	769.4	959.0	1,695.0	25.9	308.5	43.1	631.3
3633	Household laundry equipment.....	408.5	562.3	982.5	31.8	138.6	18.3	353.9
3634	Electric housewares and fans.....	597.0	519.0	1,118.9	27.2	232.7	38.8	463.8
3635	Household vacuum cleaners.....	192.1	123.5	308.1	7.4	59.9	5.7	116.1
3636	Sewing machines.....	95.3	30.0	123.6	5.6	51.2	7.6	98.3
3639	Household appliances, n.e.c.....	227.1	277.3	500.9	11.5	79.8	13.1	204.2
364	Electric lighting and wiring equipment.....	2,254.9	<sup>2</sup> 1,670.7	<sup>2</sup> 3,912.4	136.3	638.5	133.0	1,559.5
3641	Electric lamps.....	537.7	248.4	781.8	48.2	83.7	23.4	362.2
3642	Lighting fixtures.....	832.6	773.5	1,602.2	32.9	248.7	53.9	587.8
3643	Current-carrying wiring devices.....	538.2	354.0	891.9	34.4	169.2	35.4	355.6
3644	Noncurrent-carrying wiring devices.....	346.4	294.8	636.5	20.8	136.9	20.3	253.9
365	Radio and TV receiving equipment.....	1,576.7	<sup>2</sup> 2,576.2	<sup>2</sup> 4,107.3	93.2	761.8	90.9	1,037.4
3651	Radio and TV receiving sets.....	1,396.6	2,482.1	3,834.1	86.1	723.8	81.3	912.0
3652	Phonograph records.....	180.1	94.1	273.2	7.1	38.0	9.6	125.4
366	Communication equipment.....	7,169.8	<sup>2</sup> 4,602.7	<sup>2</sup> 11,446.8	374.2	2,689.7	476.9	5,341.5
3661	Telephone and telegraph apparatus.....	1,551.4	1,100.1	2,624.0	112.4	543.0	89.5	1,013.8
3662	Radio and TV communication equipment.....	5,618.4	3,502.6	8,822.8	261.8	2,146.7	387.4	4,327.7
367	Electronic components and accessories.....	4,460.2	<sup>2</sup> 3,180.4	<sup>2</sup> 7,608.3	380.0	1,309.7	288.4	2,508.1
3671	Electron tubes, receiving type.....	227.7	73.3	303.6	7.0	28.5	25.8	250.7
3672	Cathode ray picture tubes.....	463.7	359.3	835.1	46.1	85.3	10.9	128.4
3673	Electron tubes, transmitting.....	243.1	129.1	373.5	13.3	84.5	18.7	204.6
3674	Semiconductors.....	849.2	341.9	1,180.5	132.6	219.8	56.3	467.0
3679	Electronic components, n.e.c.....	2,676.5	2,276.8	4,915.6	181.0	891.6	176.7	1,457.4
369	Miscellaneous electrical equipment and supplies.....	1,491.4	<sup>2</sup> 1,286.7	<sup>2</sup> 2,772.8	106.3	415.9	83.7	1,042.4
3691	Storage batteries.....	260.6	314.3	579.5	16.2	92.1	17.5	244.2
3692	Primary batteries, dry and wet.....	188.7	122.0	307.6	20.2	45.4	8.5	113.8
3693	X-ray apparatus and tubes.....	135.7	104.0	233.2	11.2	55.9	6.2	86.5
3694	Engine electrical equipment.....	757.8	597.2	1,355.7	46.1	176.2	40.6	496.7
3699	Electrical equipment, n.e.c.....	148.6	149.2	296.8	12.6	46.3	10.9	101.2
37	TRANSPORTATION EQUIPMENT.....	28,079.1	<sup>2</sup> 40,235.2	<sup>2</sup> 68,238.1	1,813.6	12,349.8	1,548.4	21,731.3
371	Motor vehicles and equipment.....	13,777.8	<sup>2</sup> 26,651.5	<sup>2</sup> 40,373.6	872.0	3,523.5	643.8	11,868.9
3711	Motor vehicles.....	7,406.2	19,848.9	27,234.1	260.5	1,781.5	<sup>r</sup> 599.9	<sup>r</sup> 11,433.9
3712	Passenger car bodies.....							
3714	Motor vehicle parts and accessories.....							
3713	Truck and bus bodies.....							
3715	Truck trailers.....	269.4	448.4	717.1	22.3	130.4	19.4	205.5
372	Aircraft and parts.....	11,152.7	<sup>2</sup> 9,706.8	<sup>2</sup> 20,810.5	785.9	7,234.3	676.7	7,831.2
3721	Aircraft <sup>15</sup> .....	5,443.7	5,629.8	11,073.6	407.1	5,232.9	302.2	3,542.7
3722	Aircraft engines and engine parts.....	2,888.5	2,377.7	5,247.8	224.2	1,052.7	<sup>r</sup> 188.1	<sup>r</sup> 2,208.2
3723	Aircraft propellers and parts.....	2,820.5	1,699.3	4,489.1	154.6	948.7	<sup>r</sup> 11.2	<sup>r</sup> 113.4
3729	Aircraft equipment, n.e.c. <sup>14</sup> .....							

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
37	TRANSPORTATION EQUIPMENT--Continued							
373	Ship and boat building and repairing.....	2,008	539	168.1	1,227.3	139.4	280.9	937.9
3731	Ship building and repairing <sup>15</sup> .....	413	252	137.4	1,063.8	113.0	228.6	809.4
3732	Boat building and repairing.....	1,595	287	30.7	163.5	26.4	52.3	128.5
374	Railroad equipment.....	120	83	56.3	424.2	44.1	85.9	312.0
3741	Locomotives and parts.....	27	15	16.0	132.5	11.7	23.6	90.8
3742	Railroad and street cars.....	93	68	40.3	291.7	32.4	62.3	221.2
3751	Motorcycles, bicycles, and parts.....	91	33	12.0	70.3	10.1	19.1	53.4
379	Miscellaneous transportation equipment.....	1,303	573	54.0	294.4	46.1	90.1	221.0
3791	Trailer coaches.....	853	436	43.0	235.0	36.9	72.2	178.2
3799	Transportation equipment, n.e.c.....	450	137	11.0	59.4	9.2	17.9	42.8
38	INSTRUMENTS AND RELATED PRODUCTS.....	4,449	1,611	391.7	2,802.6	264.2	525.1	1,557.8
3811	Engineering and scientific instruments.....	680	285	47.2	336.8	31.8	64.8	194.6
382	Mechanical measuring and control devices.....	767	338	102.7	721.6	67.2	132.6	392.4
3821	Mechanical measuring devices.....	662	284	71.9	513.6	45.1	88.5	263.3
3822	Automatic temperature controls.....	105	54	30.8	208.0	22.1	44.1	129.1
3831	Optical instruments and lenses.....	301	107	20.1	157.5	13.0	27.1	84.4
384	Medical instruments and supplies.....	1,463	425	67.9	427.9	48.5	96.0	248.1
3841	Surgical and medical instruments.....	317	136	21.3	133.9	15.8	31.8	79.9
3842	Surgical appliances and supplies.....	813	214	36.5	227.8	25.5	49.9	130.2
3843	Dental equipment and supplies.....	333	75	10.1	66.2	7.2	14.3	38.0
3851	Ophthalmic goods.....	<sup>5</sup> 460	142	25.6	143.4	20.8	41.0	103.4
3861	Photographic equipment and supplies.....	554	210	92.9	805.9	55.2	108.2	395.0
387	Watches, clocks, and watchcases.....	224	104	35.3	209.5	27.7	55.4	139.9
3871	Watches and clocks.....	176	84	31.5	187.9	24.5	49.6	122.9
3872	Watchcases.....	48	20	3.8	21.6	3.2	5.8	17.0
39	MISCELLANEOUS MANUFACTURING INDUSTRIES.....	14,049	3,843	422.1	2,280.3	343.7	660.2	1,544.8
391	Jewelry, silverware, and plated ware.....	2,205	472	52.3	319.7	41.6	82.0	216.7
3911	Jewelry, precious metal.....	1,485	307	30.0	183.2	22.8	44.1	113.8
3912	Jewelers' findings and materials.....	232	62	5.5	29.3	4.5	8.6	18.8
3913	Lapidary work.....	294	21	1.9	11.5	1.7	2.9	7.7
3914	Silverware and plated ware.....	194	82	14.9	95.7	12.6	26.4	76.4
3931	Musical instruments and parts.....	344	123	25.2	145.4	21.1	40.5	107.4
394	Toys and sporting goods.....	2,438	875	115.9	559.2	97.2	183.5	386.7
3941	Games and toys.....	684	328	54.7	263.4	45.8	86.0	177.3
3942	Dolls.....	340	138	11.9	46.4	10.7	18.4	34.3
3943	Children's vehicles, except bicycles.....	46	24	3.8	19.9	3.2	6.7	14.2
3949	Sporting and athletic goods, n.e.c.....	1,368	385	45.5	229.5	37.5	72.4	160.9
395	Pens, pencils, office, and art supplies.....	959	290	34.7	199.6	25.4	50.1	116.0
3951	Pens and mechanical pencils.....	119	60	11.8	62.5	9.2	18.0	38.4
3952	Lead pencils and art goods.....	131	59	7.9	42.2	6.0	12.0	24.7
3953	Marking devices.....	602	108	8.5	53.1	5.8	11.1	29.1
3955	Carbon paper and inked ribbons.....	107	63	6.5	41.8	4.4	9.0	23.8
396	Costume jewelry and notions.....	1,608	486	51.9	253.2	44.2	84.8	176.8
3961	Costume jewelry.....	762	206	22.4	106.9	19.4	36.7	73.8
3962	Artificial flowers.....	321	79	5.2	20.2	4.6	7.9	14.8
3963	Buttons.....	234	62	4.8	23.7	4.1	8.0	16.8
3964	Needles, pins, and fasteners.....	291	139	19.5	102.4	16.1	32.2	71.4
399	Miscellaneous manufactures <sup>16</sup> .....	6,495	1,597	142.1	803.2	114.2	219.3	541.2
3991	Brooms and brushes <sup>16</sup> .....	532	169	15.8	79.8	13.0	24.5	54.5
3993	Signs and advertising displays <sup>16</sup> .....	3,169	619	47.5	304.5	36.6	70.0	195.6
3994	Morticians goods <sup>16</sup> .....	562	211	16.2	91.3	13.1	26.6	61.1
3996	Hard surface floor coverings <sup>16</sup> .....	19	11	5.9	42.7	4.8	9.8	32.5
3999	Manufactures, n.e.c. <sup>16</sup> .....	2,213	587	56.7	284.9	46.7	88.4	197.5

See footnotes at end of table.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967--Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
37	TRANSPORTATION EQUIPMENT--Continued							
373	Ship and boat building and repairing.....	1,692.3	<sup>2</sup> 1,376.6	<sup>2</sup> 3,067.2	84.7	987.9	139.5	1,192.8
3731	Ship building and repairing <sup>15</sup> .....	<sup>5</sup> 1,417.0	1,077.3	<sup>5</sup> 2,494.4	68.3	872.1	114.6	1,009.7
3732	Boat building and repairing.....	275.3	299.3	572.8	16.4	115.8	24.9	183.1
374	Railroad equipment.....	772.6	<sup>2</sup> 1,283.3	<sup>2</sup> 2,098.0	39.5	387.6	45.0	454.9
3741	Locomotives and parts.....	345.2	346.0	689.6	10.8	119.7	14.3	99.7
3742	Railroad and street cars.....	427.4	937.3	1,408.4	28.7	267.9	30.7	355.2
3751	Motorcycles, bicycles, and parts.....	136.1	170.6	299.5	5.5	60.3	9.7	82.2
379	Miscellaneous transportation equipment.....	547.6	<sup>2</sup> 1,046.4	<sup>2</sup> 1,589.3	26.0	156.2	33.7	301.3
3791	Trailer coaches.....	433.1	879.5	1,310.6	19.7	115.7	25.7	232.5
3799	Transportation equipment, n.e.c.....	114.5	166.9	278.7	6.3	40.5	8.0	68.8
38	INSTRUMENTS AND RELATED PRODUCTS.....	6,261.9	<sup>2</sup> 3,641.0	<sup>2</sup> 9,845.1	391.2	1,926.5	305.4	3,992.2
3811	Engineering and scientific instruments.....	681.5	429.3	1,080.0	23.0	239.1	33.1	358.6
382	Mechanical measuring and control devices.....	1,384.3	<sup>2</sup> 671.9	<sup>5</sup> 2,052.7	57.6	499.7	94.1	1,111.6
3821	Mechanical measuring devices.....	970.4	480.5	1,442.9	44.5	376.4	62.4	732.5
3822	Automatic temperature controls.....	413.9	191.4	609.8	13.1	123.3	31.7	379.1
3831	Optical instruments and lenses.....	274.6	125.5	392.2	15.7	88.8	11.9	131.9
384	Medical instruments and supplies.....	962.7	<sup>2</sup> 587.4	<sup>2</sup> 1,519.8	53.8	305.7	51.4	634.8
3841	Surgical and medical instruments.....	277.4	174.0	439.3	18.0	97.8	15.1	168.6
3842	Surgical appliances and supplies.....	547.5	338.7	871.3	31.4	163.4	28.3	370.3
3843	Dental equipment and supplies.....	137.8	74.7	209.2	4.4	44.5	8.0	95.9
3851	Ophthalmic goods.....	286.4	144.5	426.3	14.5	97.9	20.3	177.9
3861	Photographic equipment and supplies.....	2,272.4	1,270.7	3,570.8	216.2	510.1	64.9	1,270.1
387	Watches, clocks, and watchcases.....	400.0	<sup>2</sup> 411.7	<sup>2</sup> 803.3	10.4	185.2	29.7	307.3
3871	Watches and clocks.....	367.7	387.6	746.5	9.5	176.8	27.0	288.1
3872	Watchcases.....	32.3	24.1	56.8	0.9	8.4	2.7	19.2
39	MISCELLANEOUS MANUFACTURING INDUSTRIES.....	4,586.0	<sup>2</sup> 3,753.4	<sup>2</sup> 8,279.1	199.1	1,439.9	390.4	3,575.9
391	Jewelry, silverware, and plated ware.....	645.2	<sup>2</sup> 677.3	<sup>2</sup> 1,302.6	14.1	270.2	43.1	415.7
3911	Jewelry, precious metal.....	357.5	401.4	750.1	5.9	149.1	23.6	234.9
3912	Jewelers' findings and materials.....	57.7	68.1	124.6	1.9	18.9	4.8	34.0
3913	Lapidary work.....	32.0	59.6	88.9	0.6	19.3	1.5	16.1
3914	Silverware and plated ware.....	198.0	148.2	339.0	5.7	82.9	13.2	130.7
3931	Musical instruments and parts.....	241.4	205.2	439.1	10.5	124.4	20.1	179.0
394	Toys and sporting goods.....	1,204.4	<sup>2</sup> 1,010.5	<sup>2</sup> 2,200.5	62.8	406.5	113.0	978.5
3941	Games and toys.....	609.7	480.9	1,099.0	34.2	158.4	51.8	444.1
3942	Dolls.....	82.8	80.0	162.8	2.4	16.4	16.2	138.1
3943	Children's vehicles, except bicycles.....	39.1	43.2	81.5	3.7	14.2	4.5	35.3
3949	Sporting and athletic goods, n.e.c.....	472.8	406.4	857.2	22.5	217.5	40.5	361.0
395	Pens, pencils, office, and art supplies.....	411.4	<sup>2</sup> 317.1	<sup>2</sup> 722.0	23.0	122.1	31.6	337.8
3951	Pens and mechanical pencils.....	139.9	73.6	210.8	6.8	37.1	11.6	119.1
3952	Lead pencils and art goods.....	79.8	80.5	158.9	4.6	36.4	6.9	64.7
3953	Marking devices.....	97.9	49.8	145.5	6.3	17.7	7.6	85.6
3955	Carbon paper and inked ribbons.....	93.8	113.2	206.8	5.3	30.9	5.5	68.4
396	Costume jewelry and notions.....	529.1	<sup>2</sup> 408.2	<sup>2</sup> 930.6	21.7	134.3	52.6	414.9
3961	Costume jewelry.....	219.7	160.5	376.5	4.4	48.5	21.7	151.0
3962	Artificial flowers.....	43.3	41.4	84.7	0.8	11.2	5.0	29.2
3963	Buttons.....	46.1	35.5	80.8	1.2	12.2	5.6	43.8
3964	Needles, pins, and fasteners.....	220.0	170.8	388.6	15.3	62.4	20.3	190.9
399	Miscellaneous manufactures <sup>16</sup> .....	1,554.5	<sup>2</sup> 1,135.1	<sup>2</sup> 2,684.3	67.0	382.4	130.0	1,250.0
3991	Brooms and brushes <sup>16</sup> .....	178.9	165.8	347.1	9.3	65.2	16.6	167.9
3993	Signs and advertising displays <sup>16</sup> .....	540.9	326.1	864.7	22.5	86.1	43.5	407.5
3994	Morticians goods <sup>16</sup> .....	162.3	144.6	307.0	4.2	51.9	17.3	158.4
3996	Hard surface floor coverings <sup>16</sup> .....	132.2	88.8	220.6	7.4	39.7	5.9	132.2
3999	Manufactures, n.e.c. <sup>16</sup> .....	540.2	409.8	944.9	23.6	139.5	46.7	384.0

See footnotes at end of table.

## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967						
		Establishments		All employees		Production workers		
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
19	ORDNANCE AND ACCESSORIES <sup>3</sup> .....	424	290	410.3	3,628.6	223.1	455.9	1,572.4
192	Ammunition, except for small arms.....	166	146	311.1	2,898.6	153.5	314.4	1,127.3
1925	Complete guided missiles.....	68	62	206.8	2,158.7	74.3	152.0	633.2
1929	Ammunition, except for small arms, n.e.c.....	98	84	104.3	739.9	79.2	162.4	494.1
1931	Tanks and tank components.....	27	21	13.1	97.8	10.0	20.6	64.5
1941	Sighting and fire control equipment.....	13	8	4.6	40.5	2.4	5.2	18.1
1951	Small arms.....	71	32	17.5	124.6	13.2	27.5	83.7
1961	Small arms ammunition.....	42	15	24.5	169.2	19.1	37.9	120.8
1911	Guns, howitzers, and mortars.....	105	68	39.5	297.9	24.9	50.3	158.0
1999	Ordnance and accessories, n.e.c.....							

(NA) Not available. n.e.c. Not elsewhere classified.

<sup>1</sup>Includes expenditures for plants in operation and for plants under construction but not yet in operation.<sup>2</sup>The total value of shipments for industry groups (2- and 3-digit) and a few individual industries (4-digit) includes extensive duplication arising from shipments between establishments in the same industry classification.<sup>3</sup>Includes data only for privately-owned and/or operated establishments. Government-owned and operated establishments are excluded.<sup>4</sup>In 1967 and 1963, in addition to the employment and payroll reported for operating manufacturing establishments, manufacturing concerns reported separately for central administrative offices or auxiliary units which serve the manufacturing establishments of a company (e.g., storage warehouses, power plants, research laboratories, garages, repair shops, etc.), rather than the general public. Separate reports were obtained if these units were at different general locations from the establishments served or if they serviced more than one manufacturing establishment. The figures shown for these units do not represent a separate industry but rather a balancing total for all manufacturing industries.<sup>5</sup>Some of the small establishments in these industries may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)<sup>6</sup>Establishments in this industry were requested to report value of production instead of value of shipments. Consequently, the formula for computing value added by manufacture was modified to exclude any change in finished products inventories between the beginning and end of the year.<sup>7</sup>The data for 1967 for industry 2045 exclude establishments producing self-rising, phosphated, and bromated flour which is now classified in industry 2041. However for 1963, data were included.<sup>8</sup>Data for 1967 for industry 2396 are not strictly comparable with prior years because of misclassification of several plants. These establishments accounted for approximately 5 to 10 percent of total employment and value of shipments in 1967.<sup>9</sup>The 1963 data for industry 2651 are not directly comparable with other years due to an undetermined number of establishments reporting sanitary containers as folding boxes. This caused such establishments to be classified incorrectly to the Folding Box Industry.<sup>10</sup>Value added data include government-owned, contractor-operated plants which were estimated based upon averages reported for commercial establishment in prior years. Cost of materials data exclude government-owned materials furnished to government-owned, contractor-operated plants and include fuel and electricity purchased by or for the establishments. Value of shipments data include a calculated value of shipments for government-owned, contractor-operated plants comprised of adjusted value added plus the cost of fuels and electric energy. Capital expenditures, new, include expenditures for plants under construction but not in operation. Capital expenditures of government-owned, contractor-operated plants are excluded from the totals for the industry.<sup>11</sup>Data for 1963 for industry 3461 have been revised by the inclusion of automotive stampings plants operated by automobile producing companies. The data for 1963 for industries 3711 and 3714 (previously identified as Census code 3717) have been revised by the exclusion of automotive stampings plants operated by automobile producing companies.



## General Statistics for Industry Groups and Industries: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Code	Industry group and industry	1967—Continued					1963	
		Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures new <sup>1</sup> (million dollars)	End-of-year inventories (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
19	ORDNANCE AND ACCESSORIES <sup>3</sup> .....	5,683.0	<sup>2</sup> 4,122.7	<sup>2</sup> 9,730.7	216.4	1,172.0	248.6	2,918.7
192	Ammunition, except for small arms.....	4,575.0	<sup>2</sup> 3,033.7	<sup>2</sup> 7,523.6	168.0	733.7	184.2	2,246.7
1925	Complete guided missiles.....	<sup>17</sup> 3,418.2	1,560.7	<sup>17</sup> 4,978.9	117.6	499.9	151.6	<sup>17</sup> 1,960.9
1929	Ammunition, except for small arms, n.e.c.....	1,156.8	1,473.0	2,544.7	50.4	233.8	32.6	285.8
1931	Tanks and tank components.....	144.5	261.8	392.5	3.5	88.0	11.3	148.4
1941	Sighting and fire control equipment.....	59.7	38.7	100.5	1.2	11.2	9.2	96.3
1951	Small arms.....	215.7	154.5	363.3	11.0	83.4	10.0	88.3
1961	Small arms ammunition.....	279.4	315.5	583.8	12.4	151.3	8.9	103.8
1911	Guns, howitzers, and mortars.....	408.7	318.5	767.0	20.3	104.4	25.0	235.2
1999	Ordnance and accessories, n.e.c.....							

<sup>12</sup>The figures for 1967 for industry 3534 are not comparable with those for earlier years because some companies previously included construction receipts with value of shipments. Value added and value of shipments would have been \$50 million to \$75 million higher had they been on a basis comparable with earlier years.

<sup>13</sup>In 1967 a number of establishments performing "machine shop jobwork" have been classified in this industry, which had previously been classified in other industries. This change in classification results mainly from the fact that a separate product code for such work (35993 11) was introduced in the 1967 Census of Manufactures. It appears that between \$400 million and \$600 million in value of shipments is accounted for by establishments which have been classified in other industries in prior years.

<sup>14</sup>The 1963 data for industry 3729 exclude establishments which were classified in industry 3723.

<sup>15</sup>Establishments in this industry reported value of work done rather than value of shipments. Consequently, the formula for computing value added by manufacture was not adjusted for inventory change between the beginning and the end of the year. It does include value added by resale.

<sup>16</sup>Industry group 399, "Miscellaneous Manufactures," was previously identified as industry groups 398 and 399. The comparability of 1967 industry codes with those used in prior years is as follows:

1967 SIC	Prior year SIC	1967 SIC	Prior year SIC
3991	3981	3999	{ 3983 3984 3987 3992 3995 3999
3993	3993		
3994	3988		
3996	3982		

<sup>17</sup>Establishments in the industry were requested to report value of work done instead of value of shipments. Consequently, the formula for computing value added by manufacture was not adjusted for any inventory change between the beginning and end of the year.

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which, in turn, will be included in Volumes I and II, Industry Statistics, 1967 Census of Manufacturers. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report includes separate figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added.

As in earlier censuses, a number of small establishments may have been misclassified as to

industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 employees or more are far more reliable than the total number of establishments.

More detailed figures for these industries will appear in the final census reports. The final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C. 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures Volumes.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Central Administrative Office and Auxiliary Unit Employees--**Respondents were asked to file separate reports for any central administrative offices or auxiliary units at a different location from the establishments served or at the same location as one of these establishments but not operated as an integral part thereof and administering and serving two or more establishments. The functions of employees in central administrative offices include general company policy determination, planning and management (i.e., company purchasing, accounting, general engineering, direction of company personnel matters, and legal and patent matters). Auxiliaries are storage facilities, garages, repair shops, purchasing offices, sales promotion offices, and research laboratories serving the plants or central management of the company.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

## Production and Related Worker Man-Hours--

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Duplication in Cost of Materials and Value of Products--**The aggregate of the costs of materials and value of shipments figures for industry groups and for all manufacturing industries may include large amounts of duplication since the products of some industries are used as materials by others. With some important exceptions, such as motor vehicles and parts, this duplication is not significant within individual industries but arises from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication--the value of finished manufactures--tends to approximate two-thirds of the total value of products.

Even where no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs to value of shipments among industries.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-4

## SUMMARY SERIES

### preliminary report

## Water use in manufacturing: 1968

The total quantity of water used (including water recirculated or reused) by manufacturing establishments in the United States in 1968 was estimated at 35.6 trillion gallons, almost 20 percent greater than the 29.9 trillion gallons used in 1964. The 1968 total, when compared with the 15.4 trillion gallons of water intake representing the water purchased from utilities or obtained from the manufacturing company's private water supply source, indicates that each gallon of water introduced into the manufacturing process was reused or recirculated 2.3 times before being discharged. The corresponding reuse ratio for 1967 was 2.1. Of the 15.4 trillion gallons of water intake, 14.3 trillion gallons were discharged after being used, recirculated, or reused in manufacturing activities. Thus, for every 100 gallons of water intake in 1968, about 93 gallons were discharged, representing only a slight variation from the 1964 discharge ratio of 94 gallons per each 100 gallons intake. Finally, of the 14.3 trillion gallons discharged in 1968, almost 4.4 trillion gallons were treated prior to discharge, or 30 gallons of water treated per 100 gallons discharged, virtually unchanged from the 1964 ratio. As in 1964, establishments in Major Groups 26, Paper and Allied Products; 28, Chemicals and Allied Products; 29, Petroleum and Coal Products; and 33, Primary Metal Industries, were the largest users of water for industrial purposes with an aggregate usage in 1968 of 13.1 trillion gallons, or 85 percent of total water intake in the manufacturing sector.

The 1968 data in this report are preliminary and subject to revision; they are based on information obtained in a special survey conducted on Census Form MC-D-13A, Water Use in Manufacturing: 1968, copies of which were sent to those manufacturing establishments that indicated in the 1967 Census of Manufactures consumption of at least 20 million gallons of water during

1967. All such establishments were subsequently asked to report detailed data on water consumed for 1968 on Form MC-D-13A. The number of establishments actually reporting water consumption of 20 million gallons or more in 1968 totaled over 9,300, and selected data reported by these plants are shown in the accompanying table. It is estimated that both the 1968 and 1964 data on water as shown in this report represent approximately 97 percent of all water intake consumed by manufacturing establishments.

In addition to the data shown for water used, discharged, and treated, information was also obtained on water intake by kind (fresh or brackish) and source (public or company system); water intake and water recirculated or reused by purpose (process, cooling, condensing, and other uses); water discharged by point of discharge (public sewer system, company disposal or storage system); and water treated by method of treatment. Detailed statistics on these characteristics of industrial water use, disposal, and treatment classified by industry, by State, and by water-use region, will be published at a later date as will similar data on water used in 1968 in the mineral industries which were obtained as part of the 1967 Census of Mineral Industries program. The 1964 data in this report were previously published in the 1963 Census of Manufactures publication, "Water Use in Manufacturing," Series MC63(1)-10.

The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing individual company information, data for major industry groups (2-digit SIC) take precedence over industry group (3-digit SIC) totals which, in turn, take precedence over individual (4-digit SIC)

Issued September 1970

For sale by the Bureau of the Census, Washington, D.C., 20233, and U.S. Department of Commerce Field Offices. 10 cents.

U.S. DEPARTMENT OF COMMERCE    Maurice H. Stans, Secretary  
   Rocco C. Siciliano, Under Secretary  
   Harold C. Passer, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS    George Hay Brown, Director

industries. In presenting the data shown in the accompanying table, this procedure was followed with respect to all levels of classification except for establishments in Major Groups 19, Ordnance and Accessories; 23, Apparel and Other Textile Products; and 27, Printing and Publishing. In the case of Major Group 19 establishments, water-use data were obtained and are included in the U.S. totals but are not presented separately. Establishments in Major Groups 23 and 27 were not surveyed since these industry groups use insignificant quantities of water in the manufacturing process.

For purposes of this publication, Water Intake is defined as water supplied to a manufacturing establishment by a public water system or by a water system owned by the manufacturing establishment. Gross Water Used represents the estimated quantity of water that would have been required if no water had been recirculated or reused. For example, if total water intake was 400 million gallons and of this 400 million gallons, 100 million gallons were used twice for cooling purposes and once for washing products or materials, the total water required would be 300 million gallons, plus the 300 million gallons not recirculated, for a total of 600 million gallons (less consumption and evaporation loss). Water Discharged comprises all water brought to the ultimate discharge point and then discharged. This excludes water held in ponds, lagoons, or settling basins for reuse or treatment and also

excludes water lost by evaporation. Water Treated represents all water treated for control of biological growth; removal of suspended or dissolved solids; corrosion control; or for any other purpose, either by simple or complex methods of treatment.

The 1967 Census of Manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location submitted separate reports if the activities were of significant size and the company records permitted such a separation. Establishments are classified in manufacturing industries in accordance with industry definitions described in the 1967 edition of the Standard Industrial Classification (SIC) manual. The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specified that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Water Intake, Gross Water Used, and Water Discharged by Industry Group and Selected Industries: 1968 and 1964

(Billion gallons)

Code	Industry group and industry	1968					1964				
		Water intake		Gross water used, including water re-circulated or reused	Water discharged		Water intake		Gross water used, including water re-circulated or reused	Water discharged	
		Total	Treated prior to use		Total	Treated prior to discharge	Total	Treated prior to use		Total	Treated prior to discharge
	United States, total.....	15,355	3,507	35,556	14,313	4,356	<sup>r</sup> 14,016	<sup>r</sup> 2,625	<sup>r</sup> 29,915	<sup>r</sup> 13,133	<sup>r</sup> 3,811
20	Food and kindred products.....	812	137	1,328	755	185	760	113	<sup>r</sup> 1,191	688	158
201	Meat products.....	105	24	169	99	39	105	21	165	99	39
2011	Meatpacking plants.....	70	21	125	67	31	84	19	138	78	36
2013	Sausages and other prepared meats.....	6	1	11	5	1	4	(Z)	8	4	(Z)
2015	Poultry dressing plants.....	29	2	33	27	7	17	1	19	17	3
202	Dairy products.....	56	5	78	53	2	62	7	103	58	9
2021	Creamery butter.....	7	1	8	6	(Z)	8	1	10	7	1
2022	Cheese, natural and processed.....	4	1	4	4	(Z)	3	(Z)	4	2	(Z)
2023	Condensed and evaporated milk.....	13	1	18	13	1	18	2	31	17	3
2024	Ice cream and frozen desserts.....	3	(Z)	6	3	-	4	(Z)	10	3	(Z)
2026	Fluid milk.....	29	3	40	27	1	31	3	49	29	6
203	Canned, cured, and frozen foods.....	129	14	204	120	48	92	14	152	87	31
2031	Canned and cured seafoods.....	2	(Z)	2	2	(Z)	2	(Z)	2	2	(Z)
2032	Canned specialties.....	17	5	22	14	8	13	7	15	11	1
2033	Canned fruits and vegetables.....	42	5	72	39	16	35	3	51	33	13
2034	Dehydrated food products.....	5	(Z)	9	5	3	4	(Z)	30	4	3
2035	Pickles, sauces, and salad dressings.....	3	(Z)	5	3	1	3	(Z)	5	3	1
2036	Fresh or frozen packaged fish.....	2	(Z)	2	2	(Z)	1	(Z)	1	1	(Z)
2037	Frozen fruits and vegetables.....	57	3	91	57	20	34	2	49	33	12
204	Grain mill products.....	75	12	122	67	6	58	12	83	50	5
2041	Flour and other grain mill products.....	3	(Z)	3	3	(Z)	2	(Z)	2	1	(Z)
2042	Prepared feeds for animals and fowls.....	5	2	6	4	1	3	1	3	2	(Z)
2043	Cereal preparations.....	4	1	5	4	(Z)	5	1	5	3	1
2046	Wet corn milling.....	62	10	107	56	4	48	10	72	42	4
205	Bakery products.....	4	1	11	3	(Z)	4	1	9	4	(Z)
2051	Bread, cake, and related products.....	2	(Z)	4	2	(Z)	2	(Z)	2	1	(Z)
2052	Cookies and crackers.....	2	1	7	2	(Z)	2	1	7	2	(Z)
206	Sugar.....	243	46	358	233	71	242	29	<sup>r</sup> 327	220	55
2061	Raw cane sugar.....	114	16	165	112	35	123	4	<sup>r</sup> 167	113	19
2062	Cane sugar refining.....	84	4	100	81	4	65	3	74	59	2
2063	Beet sugar.....	45	26	94	40	32	54	22	86	49	34
207	Confectionery and related products.....	19	2	36	19	1	19	1	34	18	(Z)
208	Beverages.....	111	19	211	97	7	108	18	172	93	7
2082	Malt liquors.....	66	12	140	58	4	59	10	94	51	5
2083	Malt.....	9	1	19	8	2	7	2	18	7	1
2084	Wines, brandy, and brandy spirits.....	3	1	5	3	1	4	(Z)	6	4	(Z)
2085	Distilled liquor, except brandy.....	25	3	36	21	(Z)	30	3	45	26	(Z)
2086	Bottled and canned soft drinks.....	7	3	9	6	1	6	2	8	5	(Z)
2087	Flavoring extracts and sirups, n.e.c.....	1	(Z)	1	1	(Z)	2	(Z)	2	1	(Z)
209	Miscellaneous foods and kindred products	70	12	139	63	11	69	11	<sup>r</sup> 145	59	11
2092	Soybean oil mills.....	14	5	39	12	1	13	3	28	11	2
2094	Animal and marine fats and oils.....	9	(Z)	11	8	3	9	1	11	8	2
2095	Roasted coffee.....	3	(Z)	6	2	-	2	1	<sup>r</sup> 6	2	-
2096	Shortening and cooking oils.....	19	5	48	18	5	17	4	<sup>r</sup> 46	12	5
2099	Food preparations, n.e.c.....	18	1	22	17	1	16	1	19	15	1
21	Tobacco manufactures.....	6	1	77	5	(Z)	3	1	<sup>r</sup> 64	2	(Z)
2111	Cigarettes.....	3	1	71	2	(Z)	2	1	<sup>r</sup> 63	2	(Z)
22	Textile mill products.....	156	88	325	136	53	148	90	<sup>r</sup> 269	135	35
2211	Weaving mills, cotton.....	34	21	101	28	10	27	19	87	23	6
2221	Weaving mills, synthetics.....	12	7	44	11	5	10	5	27	9	2
2231	Weaving and finishing mills, wool.....	16	10	24	14	6	19	11	20	18	4
225	Knitting mills.....	13	5	15	11	2	7	4	<sup>r</sup> 11	6	2
2251	Women's hosiery, except socks.....	2	1	2	2	(Z)	1	1	4	1	-
2252	Hosiery, n.e.c.....	1	(Z)	1	1	(Z)	1	(Z)	1	1	(Z)
2253	Knit outerwear mills.....	2	1	2	2	(Z)	1	1	<sup>r</sup> 1	1	(Z)
2256	Knit fabric mills.....	5	3	7	5	2	3	2	<sup>r</sup> 4	3	1

See footnotes at end of table.

# Water Intake, Gross Water Used, and Water Discharged by Industry Group and Selected Industries: 1968 and 1964--Continued

(Billion gallons)

Code	Industry group and industry	1968					1964				
		Water intake		Gross water used, including water re-circulated or reused	Water discharged		Water intake		Gross water used, including water re-circulated or reused	Water discharged	
		Total	Treated prior to use		Total	Treated prior to discharge	Total	Treated prior to use		Total	Treated prior to discharge
22	Textile mill products--Continued										
226	Textile finishing, except wool.....	51	33	57	46	21	59	40	67	54	13
2261	Finishing plants, cotton.....	28	19	32	25	11	37	27	44	34	8
2262	Finishing plants, synthetics.....	18	11	20	16	10	17	10	19	16	4
2269	Finishing plants, n.e.c.....	5	3	6	5	1	4	3	4	4	(Z)
227	Floor covering mills.....	10	5	20	9	2	7	4	23	7	2
228	Yarn and thread mills.....	10	6	39	10	5	7	5	13	6	2
2281	Yarn mills, except wool.....	4	2	31	3	1	3	1	6	2	(Z)
2284	Thread mills.....	5	3	6	5	3	2	2	3	2	1
229	Miscellaneous textile goods.....	8	2	24	6	2	12	3	21	12	4
2295	Coated fabrics, not rubberized.....	4	1	13	3	(Z)	4	1	8	4	1
24	Lumber and wood products.....	112	10	167	87	15	151	14	217	123	34
242	Sawmills and planing mills.....	86	5	130	67	11	114	8	157	93	30
2421	Sawmills and planing mills, general.....	86	5	130	67	11	113	8	157	93	30
243	Millwork, plywood, and related products.....	13	1	17	10	(Z)	12	2	19	10	(Z)
2432	Veneer and plywood.....	12	1	16	10	(Z)	11	1	18	10	(Z)
249	Miscellaneous wood products.....	12	3	18	9	3	9	4	24	5	3
2491	Wood preserving.....	1	(Z)	1	1	(Z)	1	(Z)	1	(Z)	(Z)
2499	Wood products, n.e.c.....	11	2	16	8	3	9	4	23	6	3
25	Furniture and fixtures.....	4	(Z)	6	4	(Z)	3	1	4	3	(Z)
251	Household furniture.....	2	(Z)	4	2	(Z)	1	(Z)	2	1	(Z)
2511	Wood household furniture.....	2	(Z)	3	1	(Z)	1	(Z)	1	1	(Z)
26	Paper and allied products.....	2,264	1,317	6,599	2,089	920	2,064	987	r5,491	1,942	707
2611	Pulpmills.....	271	207	812	265	79	279	162	892	271	74
2621	Papermills, except building paper.....	1,197	728	3,141	1,076	470	r1,131	573	r2,596	1,067	374
2631	Paperboard mills.....	727	358	2,477	692	352	577	232	r1,812	543	242
264	Miscellaneous converted paper products..	27	13	61	25	11	42	18	107	38	9
2641	Paper coating and glazing.....	12	8	20	12	5	26	14	69	23	7
2646	Pressed and molded pulp goods.....	5	1	11	4	1	5	1	11	5	1
265	Paperboard containers and boxes.....	6	1	14	4	2	5	1	11	3	2
2654	Sanitary food containers.....	2	(Z)	6	1	(Z)	1	(Z)	5	1	(Z)
2661	Building paper and board mills.....	37	11	93	26	6	31	2	r73	25	5
28	Chemicals and allied products.....	4,507	590	9,459	4,206	674	r3,899	r455	r7,672	r3,688	r589
281	Industrial chemicals.....	3,368	374	6,654	3,166	466	r3,030	r302	r5,840	r2,894	r430
2812	Alkalies and chlorine.....	386	63	574	364	117	528	31	628	509	129
2815	Cyclic intermediates and crudes.....	138	17	364	128	50	r111	r18	r281	r103	r50
2818	Industrial organic chemicals, n.e.c.....	2,140	172	3,959	2,033	142	1,708	r131	3,319	1,660	114
2819	Industrial inorganic chemicals, n.e.c.....	515	89	1,432	468	133	r506	95	r1,320	r454	r110
282	Plastics materials and synthetics.....	634	134	1,639	581	141	530	r101	r1,177	509	119
2821	Plastics materials and resins.....	230	38	499	198	32	218	r34	470	206	41
2822	Synthetic rubber.....	62	17	339	58	41	61	15	182	57	40
2823	Cellulosic manmade fibers.....	182	57	409	176	35	152	33	r317	150	22
2824	Organic fibers, noncellulosic.....	160	22	393	149	34	98	20	208	96	17
283	Drugs.....	101	5	186	99	6	65	7	121	r62	5
2834	Pharmaceutical preparations.....	61	4	138	59	3	28	3	79	25	(Z)
284	Soap, cleaners, and toilet goods.....	32	6	45	30	1	32	4	45	23	2
2841	Soap and other detergents.....	20	5	31	20	(Z)	19	2	31	12	2
2851	Paints and allied products.....	7	1	10	6	(Z)	5	1	8	5	1
2861	Gum and wood chemicals.....	21	5	108	19	3	26	5	117	24	4

See footnotes at end of table.



# Water Intake, Gross Water Used, and Water Discharged by Industry Group and Selected Industries: 1968 and 1964--Continued

(Billion gallons)

Code	Industry group and industry	1968					1964				
		Water intake		Gross water used, including water re-circulated or reused	Water discharged		Water intake		Gross water used, including water re-circulated or reused	Water discharged	
		Total	Treated prior to use		Total	Treated prior to discharge	Total	Treated prior to use		Total	Treated prior to discharge
28	Chemicals and allied products--Con.										
287	Agricultural chemicals.....	131	25	526	114	30	115	18	226	90	17
2871	Fertilizers.....	114	14	474	97	28	113	18	217	89	16
289	Miscellaneous chemical products.....	213	41	291	190	26	94	17	138	81	10
2891	Adhesives and gelatin.....	12	7	19	9	6	12	5	16	11	4
2892	Explosives.....	152	30	187	143	18	28	6	35	27	2
2899	Chemical preparations, n.e.c.....	30	2	65	28	2	36	5	64	33	4
29	Petroleum and coal products.....	1,365	200	7,220	1,217	918	1,398	168	6,161	1,317	1,006
2911	Petroleum refining.....	1,356	199	7,209	1,210	917	1,388	167	6,146	1,309	1,004
295	Paving and roofing materials.....	8	(Z)	10	7	1	10	1	14	9	1
30	Rubber and plastics products, n.e.c...	135	26	268	129	8	r 124	24	r 247	r 116	9
3011	Tires and inner tubes.....	62	15	143	59	4	r 60	14	r 141	r 56	4
3069	Fabricated rubber products, n.e.c.....	43	3	78	40	1	r 40	4	r 72	r 37	1
3079	Miscellaneous plastics products.....	27	8	42	26	2	r 19	6	r 28	r 18	3
31	Leather and leather products.....	16	3	19	15	(Z)	16	2	18	15	7
3111	Leather tanning and finishing.....	15	3	18	14	(Z)	16	2	18	14	7
32	Stone, clay, and glass products.....	251	50	412	219	37	249	50	389	218	41
3211	Flat glass.....	37	10	71	36	5	38	9	72	37	8
322	Glass and glassware, pressed or blown...	15	4	61	14	4	16	7	47	16	4
3221	Glass containers.....	8	2	19	7	3	7	3	15	7	1
3229	Pressed and blown glass, n.e.c.....	7	2	43	7	1	9	4	32	9	3
3231	Products of purchased glass.....	5	(Z)	7	5	1	5	(Z)	9	5	(Z)
3241	Cement, hydraulic.....	118	9	157	100	2	114	9	151	95	2
325	Structural clay products.....	1	(Z)	2	1	(Z)	1	(Z)	1	1	(Z)
326	Pottery and related products.....	2	(Z)	7	2	(Z)	2	(Z)	6	2	(Z)
327	Concrete, gypsum, and plaster products..	18	1	22	14	4	17	1	25	13	4
3273	Ready-mixed concrete.....	8	(Z)	9	7	2	6	(Z)	8	6	1
3274	Lime.....	5	(Z)	7	3	2	7	(Z)	12	5	3
3275	Gypsum products.....	4	(Z)	5	3	1	3	1	3	2	(Z)
3281	Cut stone and stone products.....	4	(Z)	5	4	1	4	(Z)	5	4	1
329	Miscellaneous nonmetallic mineral products.....	49	25	80	44	20	51	23	72	46	20
3291	Abrasive products.....	5	1	8	5	(Z)	4	(Z)	6	4	(Z)
3292	Asbestos products.....	8	1	17	6	2	8	1	15	7	3
3293	Gaskets and insulations.....	3	(Z)	3	2	(Z)	2	(Z)	3	2	(Z)
3295	Minerals, ground or treated.....	23	17	25	22	13	25	18	29	24	13
3296	Mineral wood.....	6	2	17	4	2	6	1	13	4	(Z)
33	Primary metal industries.....	4,931	970	7,672	4,695	1,431	r 4,602	r 641	r 6,789	r 4,321	r 1,159
331	Blast furnace and basic steel products..	4,318	919	6,397	4,128	1,355	r 4,047	602	r 5,801	r 3,806	1,103
3312	Blast furnaces and steel mills.....	3,997	916	6,047	3,810	1,301	3,815	598	5,510	3,576	1,041
3315	Steel wire and related products.....	7	1	10	7	1	7	(Z)	8	6	-
3317	Steel pipe and tubes.....	7	1	11	7	1	r 8	(Z)	r 13	r 7	1
332	Iron and steel foundries.....	49	7	82	39	14	r 40	r 4	r 67	r 34	r 10
3321	Gray iron foundries.....	36	4	59	28	11	r 29	1	r 46	r 23	r 7
3322	Malleable iron foundries.....	6	2	14	5	2	r 5	r 2	r 11	r 5	r 2
3323	Steel foundries.....	6	(Z)	10	6	1	6	1	10	6	1
333	Primary nonferrous metals.....	442	19	920	412	37	r 416	r 17	r 714	r 387	r 26
3331	Primary copper.....	58	2	171	38	12	r 62	3	r 179	r 43	8
3334	Primary aluminum.....	205	14	513	200	18	197	10	335	191	14
3341	Secondary nonferrous metals.....	2	(Z)	3	2	1	2	(Z)	4	2	(Z)

See footnotes at end of table.

# Water Intake, Gross Water Used, and Water Discharged by Industry Group and Selected Industries: 1968 and 1964--Continued

(Billion gallons)

Code	Industry group and industry	1968					1964				
		Water intake		Gross water used, including water re-circulated or reused	Water discharged		Water intake		Gross water used, including water re-circulated or reused	Water discharged	
		Total	Treated prior to use		Total	Treated prior to discharge	Total	Treated prior to use		Total	Treated prior to discharge
33	Primary metal industries--Continued										
335	Nonferrous rolling and drawing.....	97	23	223	92	23	83	r 16	r 174	79	17
3351	Copper rolling and drawing.....	38	9	54	37	8	r 36	r 7	r 59	r 34	7
3352	Aluminum rolling and drawing.....	31	9	112	30	14	r 30	r 7	r 77	r 29	10
3356	Nonferrous rolling and drawing, n.e.c.....	12	1	23	9	1	r 7	1	r 14	r 6	1
3357	Nonferrous wire drawing and insulating.....	16	4	33	15	(Z)	10	1	24	9	(Z)
336	Nonferrous foundries.....	11	1	24	11	1	r 7	1	r 13	r 7	1
3361	Aluminum castings.....	9	1	18	8	(Z)	r 4	(Z)	r 9	r 4	1
3362	Brass, bronze, and copper castings.....	1	(Z)	1	1	(Z)	r 1	(Z)	r 1	r 1	(Z)
3369	Nonferrous castings, n.e.c.....	1	(Z)	4	1	(Z)	1	(Z)	r 3	1	(Z)
339	Miscellaneous primary metal products.....	13	2	24	12	1	r 7	2	r 16	r 6	(Z)
34	Fabricated metal products.....	68	7	169	65	9	r 53	r 7	r 137	r 50	r 6
3411	Metal cans.....	2	(Z)	2	2	(Z)	1	(Z)	3	1	(Z)
342	Cutlery, handtools, and hardware.....	17	1	30	16	2	14	1	r 26	13	2
3423	Hand and edge tools, n.e.c.....	1	(Z)	2	1	(Z)	1	(Z)	r 2	1	(Z)
3429	Hardware, n.e.c.....	9	1	20	9	2	10	1	r 19	9	2
343	Plumbing and heating, except electric...	4	(Z)	7	4	(Z)	4	1	7	4	(Z)
3431	Metal sanitary ware.....	2	(Z)	4	2	(Z)	2	(Z)	4	1	(Z)
3432	Plumbing fittings and brass goods.....	1	(Z)	1	1	(Z)	1	(Z)	1	1	(Z)
3433	Heating equipment, except electric.....	1	(Z)	1	1	(Z)	1	(Z)	2	1	(Z)
344	Fabricated structural metal products....	6	1	10	6	1	r 7	1	r 11	r 7	r 2
3441	Fabricated structural steel.....	1	(Z)	2	1	(Z)	1	(Z)	1	1	(Z)
3442	Metal doors, sash, and trim.....	1	(Z)	3	1	(Z)	2	(Z)	r 3	r 2	(Z)
3443	Fabricated platework (boiler shops).....	2	(Z)	4	2	(Z)	r 3	1	r 5	r 3	1
3444	Sheet metal work.....	1	(Z)	1	1	(Z)	1	1	1	1	(Z)
345	Screw machine products, bolts, etc.....	6	(Z)	8	5	1	r 5	(Z)	r 7	r 5	(Z)
3461	Metal stampings.....	14	2	82	14	1	r 10	r 2	r 64	r 9	1
347	Metal services, n.e.c.....	8	1	9	8	2	5	(Z)	6	5	1
3471	Plating and polishing.....	7	1	9	7	2	5	(Z)	5	5	1
3481	Miscellaneous fabricated wire products....	1	(Z)	2	1	(Z)	2	(Z)	2	1	(Z)
349	Miscellaneous fabricated metal products.	9	2	18	9	1	6	1	r 11	5	1
3494	Valves and pipe fittings.....	4	(Z)	6	4	1	3	(Z)	3	3	(Z)
35	Machinery, except electrical.....	189	17	340	177	25	157	13	r 274	149	12
351	Engines and turbines.....	86	3	110	85	3	56	1	r 71	55	3
3522	Farm machinery.....	32	1	47	27	13	38	1	45	36	6
353	Construction and related machinery.....	21	7	66	20	5	12	6	r 45	11	(Z)
3531	Construction machinery.....	15	5	40	15	5	7	3	r 22	7	(Z)
3533	Oilfield machinery.....	2	(Z)	20	1	-	1	(Z)	r 18	1	(Z)
354	Metalworking machinery.....	7	1	14	6	(Z)	5	(Z)	r 10	5	(Z)
3541	Machine tools, metal-cutting types.....	3	(Z)	4	3	(Z)	2	(Z)	2	2	(Z)
3545	Machine tool accessories.....	1	(Z)	3	1	(Z)	2	(Z)	3	1	(Z)
3548	Metalworking machinery, n.e.c.....	2	(Z)	5	1	(Z)	1	(Z)	r 3	1	(Z)
355	Special industry machinery.....	7	(Z)	11	4	1	6	(Z)	9	3	1
3552	Textile machinery.....	2	(Z)	2	2	1	2	(Z)	2	2	-
3559	Special industry machinery, n.e.c.....	4	(Z)	7	1	(Z)	3	(Z)	6	1	(Z)
356	General industrial machinery.....	12	3	38	12	1	17	1	39	17	1
3561	Pumps and compressors.....	3	(Z)	6	3	(Z)	9	1	10	8	(Z)
3562	Ball and roller bearings.....	5	2	22	5	1	3	(Z)	21	3	1
3566	Power transmission equipment.....	3	1	5	3	(Z)	3	(Z)	4	3	(Z)
3569	General industrial machinery, n.e.c.....	1	(Z)	4	1	(Z)	2	(Z)	3	2	(Z)
357	Office and computing machines.....	13	1	31	13	1	14	1	38	14	1
358	Service industry machines.....	6	1	15	6	(Z)	6	1	15	6	(Z)
3585	Refrigeration machinery.....	6	(Z)	13	6	(Z)	5	1	14	5	(Z)
3599	Miscellaneous machinery, except electrical	4	1	9	3	(Z)	2	(Z)	3	2	(Z)

See footnotes at end of table.



# Water Intake, Gross Water Used, and Water Discharged by Industry Group and Selected Industries: 1968 and 1964--Continued

(Billion gallons)

Code	Industry group and industry	1968					1964				
		Water intake		Gross water used, including water re-circulated or reused	Water discharged		Water intake		Gross water used, including water re-circulated or reused	Water discharged	
		Total	Treated prior to use		Total	Treated prior to discharge	Total	Treated prior to use		Total	Treated prior to discharge
36	Electrical equipment and supplies.....	126	20	367	119	27	105	15	<sup>r</sup> 275	<sup>r</sup> 96	15
361	Electric test and distributing equipment	11	1	26	10	2	11	1	22	10	1
3611	Electric measuring instruments.....	2	(Z)	5	2	(Z)	2	(Z)	3	2	(Z)
3612	Transformers.....	5	(Z)	13	4	(Z)	4	(Z)	11	4	(Z)
3613	Switchgear and switchboard apparatus.....	4	(Z)	8	4	1	5	1	8	5	1
362	Electrical industrial apparatus.....	19	3	37	18	4	<sup>r</sup> 20	3	<sup>r</sup> 35	<sup>r</sup> 19	4
3621	Motors and generators.....	11	2	23	11	3	<sup>r</sup> 15	2	<sup>r</sup> 26	<sup>r</sup> 15	3
3622	Industrial controls.....	3	(Z)	3	2	(Z)	1	(Z)	2	1	-
363	Household appliances.....	25	2	37	24	9	<sup>r</sup> 22	3	<sup>r</sup> 31	<sup>r</sup> 20	2
3632	Household refrigerators and freezers.....	13	1	18	13	7	<sup>r</sup> 12	2	17	<sup>r</sup> 10	1
3633	Household laundry equipment.....	3	(Z)	6	3	1	2	(Z)	5	2	1
3634	Electric housewares and fans.....	4	(Z)	6	4	1	4	(Z)	5	4	(Z)
364	Electric lighting and wiring equipment..	8	1	14	7	1	7	1	9	7	(Z)
3642	Lighting fixtures.....	3	1	5	2	(Z)	2	(Z)	3	2	-
3643	Current carrying wiring devices.....	2	(Z)	2	2	(Z)	2	(Z)	2	2	(Z)
365	Radio and TV receiving equipment.....	4	1	11	4	1	4	(Z)	<sup>r</sup> 7	3	1
366	Communication equipment.....	23	4	129	21	3	19	2	<sup>r</sup> 96	18	2
367	Electronic components and accessories...	21	8	86	19	7	14	3	<sup>r</sup> 53	12	4
3671	Electron tubes, receiving type.....	1	(Z)	6	1	-	1	(Z)	6	1	-
3674	Semiconductors.....	7	2	43	6	3	4	2	<sup>r</sup> 29	3	1
3679	Electronic components, n.e.c.....	9	3	27	8	3	5	1	10	5	1
369	Miscellaneous electrical equipment and supplies.....	16	1	28	15	1	8	1	<sup>r</sup> 21	6	1
3691	Storage batteries.....	3	(Z)	7	3	1	2	(Z)	4	2	-
3694	Engine electrical equipment.....	5	(Z)	8	5	(Z)	4	1	9	3	(Z)
37	Transportation equipment.....	310	39	885	293	22	<sup>r</sup> 244	<sup>r</sup> 30	<sup>r</sup> 624	<sup>r</sup> 235	24
371	Motor vehicles and equipment.....	140	24	584	132	14	<sup>r</sup> 124	<sup>r</sup> 16	<sup>r</sup> 382	<sup>r</sup> 119	16
372	Aircraft and parts.....	143	14	264	135	6	96	13	204	92	7
3722	Aircraft engines and engine parts.....	102	9	156	97	2	60	6	108	59	4
3729	Aircraft equipment, n.e.c.....	12	2	42	11	1	11	3	27	11	-
373	Ship and boat building and repairing.....	19	(Z)	22	19	(Z)	16	1	19	15	(Z)
374	Railroad equipment.....	6	1	13	6	1	7	1	17	7	1
38	Instruments and related products.....	37	16	118	36	13	29	12	76	26	9
3811	Engineering and scientific instruments....	1	(Z)	3	1	(Z)	1	(Z)	2	1	(Z)
382	Mechanical measuring and control devices	5	1	7	5	(Z)	5	1	6	5	(Z)
3821	Mechanical measuring devices.....	3	(Z)	5	3	(Z)	3	(Z)	4	3	(Z)
3822	Automatic temperature controls.....	2	(Z)	3	2	(Z)	1	1	2	1	(Z)
384	Medical instruments and supplies.....	3	1	4	3	(Z)	3	(Z)	3	3	(Z)
3861	Photographic equipment and supplies.....	18	13	86	17	11	14	10	52	12	(Z)
387	Watches, clocks, and watchcases.....	2	1	3	2	(Z)	1	(Z)	3	1	(Z)
39	Miscellaneous manufacturing industries	14	2	24	13	1	13	2	22	12	(Z)
391	Jewelry, silverware, and plated ware....	5	(Z)	5	4	(Z)	4	(Z)	5	4	(Z)
3914	Silverware and plated ware.....	5	(Z)	5	4	(Z)	4	(Z)	5	3	(Z)
394	Toys and sporting goods.....	3	1	5	3	(Z)	3	1	4	2	(Z)
396	Costume jewelry and notions.....	2	(Z)	3	2	(Z)	2	(Z)	2	2	(Z)
399	Miscellaneous manufactures.....	3	1	10	3	(Z)	3	1	10	3	(Z)

Note: Detailed figures may not add to totals because of independent rounding. The figures shown for industry groups include data for all component industries whether or not separate figures are shown for the individual industries in the group.

<sup>r</sup>Revised. - Represents zero. (Z) Less than 500 million gallons.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

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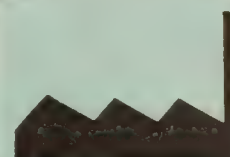


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# 1967 CENSUS OF MANUFACTURES



MC67(P)-5

## SUMMARY SERIES

### General Statistics for Geographic Divisions and States (Recapitulation of preliminary area reports)

**preliminary  
report**

This report presents a summary of the 1967 Census of Manufactures preliminary State totals which were previously published in the separate State reports MC67(P)-S1 to MC67(P)-S51.

These data are based on the census of manufactures universe. They, therefore, differ from the information published in the preliminary summary report, "General Statistics for Geographic Divisions and States," MC67(P)-2 issued in May 1969 which was based on information supplied by a sample of approximately 65,000 manufacturing establishments included in the annual survey of manufactures reporting panel. Also, the United States totals differ slightly from those published in "General Statistics for Industry Groups and Industries," MC67(P)-3 due to independent review and analysis.

The table provides data on number of establishments, total employment and wages, number of production workers, worker wages and man-hours, value added by manufacture, cost of materials, value of shipments, and new capital expenditures. It also includes the 1963 figures for total employment and value added.

The figures shown in this report have been subjected to only preliminary review and must be regarded as approximations of the final census figures. No adjustments have been made in the value figures for changes in price level.

For an explanation of the terms used in the table, see the appendix at the end of this report.

*Issued April 1970**For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents*

**U.S. DEPARTMENT OF COMMERCE** **Maurice H. Stans, Secretary**  
**Rocco C. Siciliano, Under Secretary**  
**Harold C. Passer, Assistant Secretary for Economic Affairs**  
**BUREAU OF THE CENSUS** **George Hay Brown, Director**

## 1967 CENSUS OF MANUFACTURES

## General Statistics for Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967						
	Establishments		All employees <sup>1</sup>		Production workers		
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)
UNITED STATES, TOTAL.....	311,754	110,627	19,380.5	132,500.4	13,999.0	27,895.4	81,610.8
Northeast Region.....	100,889	38,284	5,951.8	40,948.7	4,178.8	8,225.1	23,795.8
New England Division.....	24,313	9,181	1,565.5	10,212.7	1,138.4	2,279.5	6,264.1
Maine.....	2,387	615	111.8	581.2	94.2	187.9	440.4
New Hampshire.....	1,481	568	95.0	513.5	76.7	151.3	365.0
Vermont.....	933	284	42.9	261.1	31.7	65.3	163.9
Massachusetts.....	10,974	4,482	716.3	4,668.8	509.1	1,001.7	2,766.1
Rhode Island.....	2,709	925	122.6	701.3	97.0	189.1	466.9
Connecticut.....	5,829	2,307	476.9	3,486.8	329.7	684.2	2,061.8
Middle Atlantic Division.....	76,576	29,103	4,386.3	30,736.0	3,040.4	5,945.6	17,531.7
New York.....	42,960	14,767	1,937.3	13,920.1	1,291.0	2,513.6	7,374.1
New Jersey.....	14,802	5,927	886.7	6,355.5	607.4	1,209.7	3,633.7
Pennsylvania.....	18,814	8,409	1,562.3	10,460.4	1,142.0	2,222.3	6,523.9
North Central Region.....	83,866	31,592	6,376.5	46,781.2	4,599.1	9,230.8	29,850.8
East North Central Division.....	63,205	24,682	5,169.2	38,611.0	3,743.1	7,520.6	24,805.1
Ohio.....	15,468	6,326	1,409.4	10,612.7	1,007.2	2,029.1	6,811.1
Indiana.....	6,936	2,925	710.8	5,024.8	544.1	1,079.1	3,453.5
Illinois.....	18,578	7,518	1,397.2	10,001.2	996.8	1,981.1	6,180.0
Michigan.....	14,370	5,177	1,137.6	9,382.9	819.3	1,674.0	6,022.9
Wisconsin.....	7,853	2,736	514.2	3,589.4	375.7	757.3	2,337.6
West North Central Division.....	20,661	6,910	1,207.3	8,170.2	856.0	1,710.2	5,045.7
Minnesota.....	5,422	1,780	300.2	2,108.5	199.1	399.1	1,177.5
Iowa.....	3,386	1,093	210.2	1,435.1	154.0	310.1	946.1
Missouri.....	6,559	2,467	452.4	3,048.3	321.1	629.8	1,851.6
North Dakota.....	451	92	7.5	41.6	5.2	10.7	26.0
South Dakota.....	603	137	15.5	92.5	11.4	22.4	61.7
Nebraska.....	1,676	528	77.6	479.5	58.7	119.9	327.4
Kansas.....	2,564	813	143.9	964.7	106.5	218.2	655.4
South Region.....	75,743	25,469	4,683.9	26,821.3	3,618.6	7,255.6	17,660.6
South Atlantic Division.....	38,051	13,172	2,502.4	14,025.7	1,949.3	3,906.7	9,232.0
Delaware.....	537	257	71.1	590.7	39.0	76.4	229.3
Maryland.....	3,411	1,466	288.2	1,960.6	205.7	406.2	1,209.8
District of Columbia.....	587	157	23.1	179.4	11.7	21.8	77.7
Virginia.....	4,950	1,625	340.6	1,910.6	268.8	536.2	1,298.8
West Virginia.....	1,845	561	123.9	831.3	96.7	189.8	587.0
North Carolina.....	8,278	3,383	642.7	3,063.9	536.7	1,068.2	2,207.9
South Carolina.....	3,473	1,257	304.2	1,499.5	253.6	522.6	1,105.4
Georgia.....	6,990	2,271	422.5	2,229.1	338.9	683.6	1,522.1
Florida.....	7,980	2,195	286.1	1,760.6	198.2	401.9	994.0
East South Central Division.....	15,777	5,543	1,093.4	5,920.5	879.2	1,736.0	4,164.6
Kentucky.....	2,992	1,135	224.8	1,353.2	175.8	345.1	927.4
Tennessee.....	5,052	2,027	418.3	2,193.9	333.6	653.5	1,512.1
Alabama.....	4,964	1,453	289.3	1,607.5	235.5	466.7	1,162.7
Mississippi.....	2,769	928	161.0	765.9	134.3	270.7	562.4
West South Central Division.....	21,915	6,754	1,088.1	6,875.1	790.1	1,612.9	4,264.0
Arkansas.....	2,911	924	143.4	664.6	120.6	239.1	496.3
Louisiana.....	3,647	1,021	165.0	1,089.7	120.8	251.3	712.9
Oklahoma.....	2,613	750	118.1	766.4	78.9	158.8	424.2
Texas.....	12,744	4,059	661.6	4,354.4	469.8	963.7	2,630.6
West Region.....	51,256	15,282	2,368.3	17,949.2	1,602.5	3,183.9	10,303.6
Mountain Division.....	8,699	2,258	316.1	2,129.6	219.0	436.9	1,300.0
Montana.....	926	192	20.5	129.7	16.1	32.1	96.5
Idaho.....	1,134	305	37.4	222.0	29.0	56.7	156.5
Wyoming.....	333	68	6.1	37.9	4.3	8.4	24.0
Colorado.....	2,465	665	103.9	729.3	71.0	143.1	443.7
New Mexico.....	750	170	16.6	98.3	11.0	22.0	55.0
Arizona.....	1,634	429	77.3	546.8	51.0	102.5	309.7
Utah.....	1,127	355	47.2	315.6	31.8	62.5	183.0
Nevada.....	330	74	7.1	50.0	4.8	9.6	31.6
Pacific Division.....	42,557	13,024	2,052.2	15,819.6	1,383.5	2,747.0	9,003.6
Washington.....	5,036	1,385	271.5	2,122.5	177.9	346.0	1,183.0
Oregon.....	4,443	1,279	163.4	1,083.8	131.4	255.3	799.0
California.....	32,070	10,057	1,584.6	12,420.3	1,049.2	2,098.7	6,893.7
Alaska.....	309	88	7.3	53.4	6.0	11.1	41.0
Hawaii.....	699	215	25.4	139.6	19.0	35.9	86.9

See footnotes at end of table.



## General Statistics for Geographic Areas: 1967 and 1963--Continued

(See appendix, "Explanation of Terms")

Geographic area	1967--Continued				1963	
	Value added by manufacture (million dollars)	Cost of materials <sup>2</sup> (million dollars)	Value of shipments <sup>2</sup> (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
UNITED STATES, TOTAL.....	262,357.8	299,815.6	559,164.0	21,651.7	16,961.8	192,247.9
Northeast Region.....	76,643.2	74,045.6	149,845.5	5,046.0	5,499.9	57,213.7
New England Division.....	19,030.1	16,458.4	35,280.6	1,228.9	1,424.6	13,575.0
Maine.....	1,081.3	1,178.5	2,241.2	115.6	100.0	785.7
New Hampshire.....	935.0	804.6	1,721.6	75.7	84.3	636.1
Vermont.....	521.7	625.0	1,136.4	35.3	33.7	309.3
Massachusetts.....	8,748.3	7,363.3	16,023.8	494.1	673.8	6,389.4
Rhode Island.....	1,356.0	1,220.6	2,558.5	75.4	113.9	958.6
Connecticut.....	6,387.8	5,266.4	11,599.1	432.8	418.9	4,495.9
Middle Atlantic Division.....	57,613.1	57,587.2	114,564.9	3,817.1	4,075.3	43,638.7
New York.....	25,331.3	24,741.2	49,802.5	1,331.0	1,853.6	19,633.3
New Jersey.....	12,797.5	13,063.6	25,751.1	853.6	828.9	9,957.3
Pennsylvania.....	19,484.3	19,782.4	39,011.3	1,632.5	1,392.8	14,048.1
North Central Region.....	91,809.7	111,348.2	202,195.2	7,195.1	5,500.5	68,136.7
East North Central Division.....	75,045.5	85,717.2	160,040.9	6,134.4	4,486.2	56,326.6
Ohio.....	20,456.5	21,852.6	42,138.2	1,699.6	1,241.3	15,506.1
Indiana.....	10,308.7	11,724.0	21,881.3	1,051.5	609.4	7,726.9
Illinois.....	20,004.7	21,601.9	41,400.0	1,504.9	1,211.5	14,639.6
Michigan.....	17,243.7	22,021.4	39,148.6	1,369.2	961.2	13,091.7
Wisconsin.....	7,031.9	8,517.3	15,472.8	509.2	462.8	5,362.3
West North Central Division.....	16,764.2	25,631.0	42,154.3	1,060.7	1,014.3	11,810.1
Minnesota.....	4,077.8	5,433.1	9,424.3	234.6	245.9	2,806.1
Iowa.....	3,253.0	5,499.1	8,688.6	231.4	178.2	2,287.0
Missouri.....	5,891.4	8,239.8	14,090.3	351.1	391.4	4,296.0
North Dakota.....	112.7	255.4	365.3	6.3	6.5	72.4
South Dakota.....	171.2	494.4	663.1	8.2	13.2	140.0
Nebraska.....	1,150.6	2,425.4	3,555.1	73.2	64.8	746.6
Kansas.....	2,107.5	3,283.8	5,367.6	155.9	114.3	1,462.0
South Region.....	59,676.8	76,423.4	135,370.0	6,681.4	3,876.9	41,385.3
South Atlantic Division.....	29,299.6	35,550.8	64,611.9	2,831.6	2,125.0	21,157.8
Delaware.....	960.5	1,523.6	2,488.8	116.0	58.3	658.2
Maryland.....	3,790.6	4,441.7	8,215.3	265.7	264.0	3,017.2
District of Columbia.....	331.1	261.9	592.6	17.2	22.1	256.8
Virginia.....	4,080.4	4,556.8	8,621.5	364.5	302.6	3,055.6
West Virginia.....	2,168.4	1,895.5	4,040.9	268.9	116.6	1,886.4
North Carolina.....	6,599.1	8,590.8	15,124.2	662.5	530.2	4,566.5
South Carolina.....	3,020.0	3,461.4	6,454.0	401.0	261.6	2,111.1
Georgia.....	4,681.1	7,087.3	11,742.8	425.7	354.1	3,254.0
Florida.....	3,668.4	3,731.8	7,331.8	310.1	215.5	2,352.0
East South Central Division.....	13,738.5	16,106.4	29,668.9	1,419.0	887.2	9,252.7
Kentucky.....	3,637.6	4,186.8	7,800.8	339.6	180.9	2,548.5
Tennessee.....	4,957.6	5,855.9	10,733.9	421.6	334.3	3,299.3
Alabama.....	3,508.2	3,941.1	7,404.7	380.7	243.5	2,387.9
Mississippi.....	1,635.1	2,122.6	3,729.5	277.1	128.5	1,017.0
West South Central Division.....	16,638.7	24,766.2	41,089.2	2,430.8	864.7	10,974.8
Arkansas.....	1,524.3	2,356.6	3,846.0	175.0	113.6	960.9
Louisiana.....	2,795.8	4,527.8	7,272.7	742.2	139.5	1,915.6
Oklahoma.....	1,349.6	1,973.5	3,306.1	81.2	97.8	978.8
Texas.....	10,969.0	15,908.3	26,664.4	1,432.4	513.8	7,119.5
West Region.....	34,228.1	37,998.4	71,753.3	2,729.2	2,084.5	25,512.2
Mountain Division.....	4,524.2	5,631.4	10,118.8	432.0	283.6	3,471.7
Montana.....	312.0	660.8	968.3	69.0	20.2	236.2
Idaho.....	510.3	713.0	1,226.4	58.9	30.5	366.4
Wyoming.....	89.2	194.4	285.4	7.7	6.8	81.7
Colorado.....	1,508.8	1,724.7	3,214.6	100.8	93.5	1,193.8
New Mexico.....	185.0	294.4	476.9	10.7	15.3	149.6
Arizona.....	1,001.6	1,011.3	2,016.3	110.4	57.0	627.1
Utah.....	783.5	915.7	1,680.9	59.2	53.5	710.6
Nevada.....	133.8	117.1	250.0	15.3	6.8	106.3
Pacific Division.....	29,703.9	32,367.0	61,634.5	2,297.2	1,800.9	22,040.5
Washington.....	3,776.8	4,810.0	8,562.7	465.7	224.2	2,960.8
Oregon.....	2,058.4	2,554.7	4,612.0	234.3	144.9	1,574.8
California.....	23,416.0	24,463.1	47,470.2	1,556.7	1,400.9	17,158.8
Alaska.....	125.9	140.7	266.7	14.5	5.8	85.0
Hawaii.....	326.8	398.5	722.9	26.0	25.1	261.1

<sup>r</sup>Revised.<sup>1</sup>Includes employment and payroll at central administrative offices and auxiliary units. (For a definition of these units, see appendix.)<sup>2</sup>The total value of shipments and cost of materials for industry groups shown may include extensive duplication arising from shipments between establishments in the same industry classification. (For a more complete explanation, see appendix.)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information, by State, from the 1967 Census of Manufactures. The data will be superseded in a final report which, in turn, will be included in Volume III, Area Statistics, 1967 Census of Manufactures. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operated more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report includes figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with fewer than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics

other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (fewer than 10 employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count for individual industries should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 employees or more are far more reliable than the total number of establishments.

More detail figures for these States will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry" and "establishments," as well as the various statistical items such as "employment," "value of shipments," and "value added." Similar preliminary and final reports will be issued for other States during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C. 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specified that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume III.)*

**All Employees**--All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls**--This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours**--This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials**--The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put

into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Value of Shipments**--The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Duplication in Cost of Materials and Value of Products**--The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries for individual States may include large amounts of duplication since the products of some industries are used as materials by others. With some important exceptions, such as motor vehicles and parts, this duplication is not significant within individual industries but arises from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication--the value of finished manufactures--tends to approximate two-thirds of the total value of products.

In the past, the Bureau of the Census has not published figures for cost of materials or value of shipments if they contained significant duplication. Effective with the 1962 annual survey these figures were shown at all industry levels



for the United States to meet the requests for their use in studies in which the presence of an indeterminate amount of duplication is not a limiting factor. However, they are appropriately footnoted. Effective with the 1964 annual survey, these industry group totals are also shown at the State, standard metropolitan statistical area, and large-county level.

Even where no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs to value of shipments among industries.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly), plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation,

manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**Central Administrative Offices and Auxiliary Units--**In the 1967 census as in previous years, respondents were asked to file separate reports for central administrative offices or auxiliary units which were (1) at different locations from the establishments served or, (2) at the same location as one of these establishments but were not operated as an integral part thereof and served two or more establishments. The functions of employees in central administrative offices include general company policy determination, planning and management (that is, company purchasing, accounting, general engineering, direction of company personnel matters, and legal and patent matters). Auxiliaries are storage facilities, garages, repair shops, purchasing offices, sales promotion offices, and research laboratories serving the plants or central management of the company.





**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

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# 1967 CENSUS OF MANUFACTURES

SUMMARY SERIES

## Fuels and Electric Energy Used in Manufacturing

preliminary  
report

The total cost of purchased fuels and purchased electric energy used in manufacturing in 1967 amounted to \$7,762 million, about 5 percent greater than the corresponding costs in 1966, and 22 percent higher than the cost of fuels and electricity bought in 1963, the most recent year in which a complete census of manufactures was taken. Of the 1967 total cost of fuels and energy, about 65 percent was reported used by establishments classified in Major Groups 20, Food and Kindred Products; 26, Paper and Allied Products; 28, Chemicals and Allied Products; 29, Petroleum and Coal Products; 32, Stone, Clay, and Glass Products; and 33, Primary Metal Industries.

The total cost of purchased fuels used by manufacturing establishments in 1967 aggregated \$4,010 million, compared with costs of \$3,902 million and \$3,409 million, respectively, in 1966 and 1963. The major fuel-consuming industry groups in 1967 were Major Groups 20, 26, 28, 29, 32, and 33, which accounted for 75 percent of the costs of fuels consumed in manufacturing in that year.

The total quantity of purchased electricity used in manufacturing in 1967 amounted to 428 billion kilowatt-hours valued at \$3,752 million, representing increases of about 100 billion kilowatt-hours and almost \$800 million in cost, over 1963. The quantity of electric energy purchased by establishments in Major Groups 20, 22, Textile Mill Products; 26, 28, 33, and 37, Transportation Equipment, accounted for 298 billion kilowatt-

hours or 70 percent of the total purchased energy. Data on quantity generated less sold is not available at this time but will appear in the final report on fuel and electric energy to be issued at a later date.

The 1967 data in this report are based on information obtained from manufacturing establishments reporting in the 1967 Census of Manufactures. This census covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size. Establishments are classified in manufacturing industries in accordance with industry definitions described in the 1967 edition of the Standard Industrial Classification (SIC) manual.

The data shown for 1964 to 1966 in this table are based upon reports from a representative sample of between 60,000 and 65,000 manufacturing establishments included in the annual surveys of manufactures for those years. The data for those years, therefore, are subject to sampling variations which are described in detail in the final publication for the 1965 Annual Survey of Manufactures. The 1963 data were obtained in the 1963 Census of Manufactures.

Issued July 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director

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In addition to the data on cost of purchased fuels shown in this release, detailed information was obtained for selected industries on quantity

and cost of major types of fuels (coal, coke, fuel oil, and natural gas) consumed. Data on consumption of these types of fuels will be summarized at the 4-digit SIC level and will be shown in the final report on fuel and energy mentioned earlier. This report will also include 4-digit SIC data on electricity purchased and generated.

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# 1967 CENSUS OF MANUFACTURES

Series MC67(P)-7

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## Fuels and Electric Energy Used by Industry Groups: 1963 to 1967

(The standard errors of the estimates for 1964 to 1966 are typically under 5 percent and only occasionally exceed 15 percent)

SIC code	Industry group and year	Total cost of—		Electric energy purchased		SIC code	Industry group and year	Total cost of—		Electric energy purchased	
		Purchased fuels and electric energy (million dollars)	Purchased fuels (million dollars)	Quantity (million kw.-hrs.)	Cost (million dollars)			Purchased fuels and electric energy (million dollars)	Purchased fuels (million dollars)	Quantity (million kw.-hrs.)	Cost (million dollars)
	ALL INDUSTRIES, TOTAL:										
	1967.....	7,762	4,010	428,098	3,752	30	Rubber and plastics products, n.e.c.:				
	1966.....	7,366	3,902	400,552	3,464		1967.....	174	58	10,105	116
	1965.....	6,973	3,727	373,428	3,246		1966.....	158	53	10,688	105
	1964.....	6,707	3,584	357,292	3,123		1965.....	148	51	8,695	97
	1963.....	6,370	3,409	333,512	2,961		1964.....	135	46	7,674	88
							1963.....	128	45	7,024	83
20	Food and kindred products:					31	Leather and leather products:				
	1967.....	662	345	24,309	317		1967.....	35	14	1,256	21
	1966.....	634	333	23,574	301		1966.....	33	14	1,195	20
	1965.....	613	325	22,185	289		1965.....	31	13	1,057	18
	1964.....	626	337	22,771	289		1964.....	29	12	968	16
	1963.....	593	316	20,002	277		1963.....	29	13	935	16
21	Tobacco manufactures:					32	Stone, clay, and glass products:				
	1967.....	15	7	737	8		1967.....	645	442	19,741	203
	1966.....	14	7	675	7		1966.....	649	453	22,793	196
	1965.....	14	7	613	7		1965.....	623	437	18,671	185
	1964.....	13	6	562	7		1964.....	602	421	17,663	181
	1963.....	12	6	511	6		1963.....	576	403	16,284	173
22	Textile mill products:					33	Primary metal industries:				
	1967.....	285	105	20,201	180		1967.....	1,667	961	109,513	706
	1966.....	259	98	18,426	161		1966.....	1,641	979	99,700	662
	1965.....	245	93	16,998	151		1965.....	1,591	968	93,023	622
	1964.....	240	93	16,046	146		1964.....	1,511	928	85,446	582
	1963.....	225	89	14,710	137		1963.....	1,389	859	77,448	530
23	Apparel and other textile products:					34	Fabricated metal products:				
	1967.....	94	27	3,592	58		1967.....	352	146	14,688	205
	1966.....	71	23	3,167	48		1966.....	303	130	12,222	173
	1965.....	68	20	2,861	47		1965.....	271	114	11,131	157
	1964.....	67	19	3,028	47		1964.....	259	109	10,726	150
	1963.....	63	18	2,493	45		1963.....	240	100	9,300	139
24	Lumber and wood products:					35	Machinery, except electrical:				
	1967.....	210	119	7,472	91		1967.....	369	140	17,069	230
	1966.....	192	110	6,485	82		1966.....	321	126	14,939	195
	1965.....	185	112	5,673	73		1965.....	292	116	13,362	176
	1964.....	189	115	5,691	74		1964.....	281	114	12,620	167
	1963.....	183	115	4,876	68		1963.....	259	105	11,138	154
25	Furniture and fixtures:					36	Electrical equipment and supplies:				
	1967.....	59	21	2,492	38		1967.....	286	88	18,774	198
	1966.....	56	19	2,260	37		1966.....	261	83	16,903	178
	1965.....	51	18	2,141	33		1965.....	240	76	15,042	164
	1964.....	48	17	2,027	31		1964.....	226	71	13,703	155
	1963.....	46	16	1,776	30		1963.....	219	71	12,786	148
26	Paper and allied products:					37	Transportation equipment:				
	1967.....	572	365	25,436	207		1967.....	382	143	23,618	239
	1966.....	558	356	24,166	202		1966.....	366	133	23,077	233
	1965.....	522	334	21,474	187		1965.....	353	128	22,102	226
	1964.....	494	312	20,308	182		1964.....	331	124	20,023	208
	1963.....	472	305	18,475	167		1963.....	314	113	18,590	202
27	Printing and publishing:					38	Instruments and related products:				
	1967.....	127	35	5,976	92		1967.....	57	22	2,623	35
	1966.....	106	29	5,056	77		1966.....	47	18	2,223	29
	1965.....	98	27	4,781	72		1965.....	45	18	2,030	27
	1964.....	92	25	4,635	67		1964.....	41	16	1,866	25
	1963.....	91	24	4,099	67		1963.....	40	16	1,661	24
28	Chemicals and allied products:					39	Miscellaneous manufacturing industries and				
	1967.....	1,199	615	95,610	584	19	Ordnance and accessories:				
	1966.....	1,149	581	92,155	568		1967.....	119	39	6,891	80
	1965.....	1,084	542	92,083	542		1966.....	103	36	5,092	67
	1964.....	1,037	499	92,712	538		1965.....	80	26	4,315	54
	1963.....	1,009	478	93,498	531		1964.....	79	25	4,077	53
29	Petroleum and coal products:						1963.....	78	27	3,927	52
	1967.....	453	319	17,993	134						
	1966.....	443	323	15,756	120						
	1965.....	418	301	15,191	117						
	1964.....	409	294	14,746	115						
	1963.....	402	289	13,979	113						

Note: Detailed figures may not add to totals because of independent rounding.

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## Fuels and Electric Energy Used by Industry Groups: 1963 to 1967

(The standard errors of the estimates for 1964 to 1966 are typically under 5 percent and only occasionally exceed 15 percent)

SIC code	Industry group and year	Total cost of—		Electric energy purchased		SIC code	Industry group and year	Total cost of—		Electric energy purchased	
		Purchased fuels and electric energy (million dollars)	Purchased fuels (million dollars)	Quantity (million kw.-hrs.)	Cost (million dollars)			Purchased fuels and electric energy (million dollars)	Purchased fuels (million dollars)	Quantity (million kw.-hrs.)	Cost (million dollars)
	ALL INDUSTRIES, TOTAL:										
	1967.....	7,762	4,010	428,098	3,752	30	Rubber and plastics products, n.e.c.:				
	1966.....	7,366	3,902	400,552	3,464		1967.....	174	58	10,105	116
	1965.....	6,973	3,727	373,428	3,246		1966.....	158	53	10,688	105
	1964.....	6,707	3,584	357,292	3,123		1965.....	148	51	8,695	97
	1963.....	6,370	3,409	333,512	2,961		1964.....	135	46	7,674	88
							1963.....	128	45	7,024	83
20	Food and kindred products:					31	Leather and leather products:				
	1967.....	662	345	24,309	317		1967.....	35	14	1,256	21
	1966.....	634	333	23,574	301		1966.....	33	14	1,195	20
	1965.....	613	325	22,185	289		1965.....	31	13	1,057	18
	1964.....	626	337	22,771	289		1964.....	29	12	968	16
	1963.....	593	316	20,002	277		1963.....	29	13	935	16
21	Tobacco manufactures:					32	Stone, clay, and glass products:				
	1967.....	15	7	737	8		1967.....	645	442	19,741	203
	1966.....	14	7	675	7		1966.....	649	453	22,793	196
	1965.....	14	7	613	7		1965.....	623	437	18,671	185
	1964.....	13	6	562	7		1964.....	602	421	17,663	181
	1963.....	12	6	511	6		1963.....	576	403	16,284	173
22	Textile mill products:					33	Primary metal industries:				
	1967.....	285	105	20,201	180		1967.....	1,667	961	109,513	706
	1966.....	259	98	18,426	161		1966.....	1,641	979	99,700	662
	1965.....	245	93	16,998	151		1965.....	1,591	968	93,023	622
	1964.....	240	93	16,046	146		1964.....	1,511	928	85,446	582
	1963.....	225	89	14,710	137		1963.....	1,389	859	77,448	530
23	Apparel and other textile products:					34	Fabricated metal products:				
	1967.....	94	27	3,592	68		1967.....	352	146	14,688	205
	1966.....	71	23	3,167	48		1966.....	303	130	12,222	173
	1965.....	68	20	2,861	47		1965.....	271	114	11,131	157
	1964.....	67	19	3,028	47		1964.....	259	109	10,726	150
	1963.....	63	18	2,493	45		1963.....	240	100	9,300	139
24	Lumber and wood products:					35	Machinery, except electrical:				
	1967.....	210	119	7,472	91		1967.....	369	140	17,069	230
	1966.....	192	110	6,485	82		1966.....	321	126	14,939	195
	1965.....	185	112	5,673	73		1965.....	292	116	13,362	176
	1964.....	189	115	5,691	74		1964.....	281	114	12,620	167
	1963.....	183	115	4,876	68		1963.....	259	105	11,138	154
25	Furniture and fixtures:					36	Electrical equipment and supplies:				
	1967.....	59	21	2,492	38		1967.....	286	88	18,774	198
	1966.....	56	19	2,260	37		1966.....	261	83	16,903	178
	1965.....	51	18	2,141	33		1965.....	240	76	15,042	164
	1964.....	48	17	2,027	31		1964.....	226	71	13,703	155
	1963.....	46	16	1,776	30		1963.....	219	71	12,786	148
26	Paper and allied products:					37	Transportation equipment:				
	1967.....	572	365	25,436	207		1967.....	382	143	23,618	239
	1966.....	558	356	24,166	202		1966.....	366	133	23,077	233
	1965.....	522	334	21,474	187		1965.....	353	128	22,102	226
	1964.....	494	312	20,308	182		1964.....	331	124	20,023	208
	1963.....	472	305	18,475	167		1963.....	314	113	18,590	202
27	Printing and publishing:					38	Instruments and related products:				
	1967.....	127	35	5,976	92		1967.....	57	22	2,623	35
	1966.....	106	29	5,056	77		1966.....	47	18	2,223	29
	1965.....	98	27	4,781	72		1965.....	45	18	2,030	27
	1964.....	92	25	4,635	67		1964.....	41	16	1,866	25
	1963.....	91	24	4,099	67		1963.....	40	16	1,661	24
28	Chemicals and allied products:					39	Miscellaneous manufacturing industries and				
	1967.....	1,199	615	95,610	584	19	Ordinance and accessories:				
	1966.....	1,149	581	92,155	568		1967.....	119	39	6,891	80
	1965.....	1,084	542	92,083	542		1966.....	103	36	5,092	67
	1964.....	1,037	499	92,712	538		1965.....	80	26	4,315	54
	1963.....	1,009	478	93,498	531		1964.....	79	25	4,077	53
29	Petroleum and coal products:						1963.....	78	27	3,927	52
	1967.....	453	319	17,993	134						
	1966.....	443	323	15,756	120						
	1965.....	418	301	15,191	117						
	1964.....	409	294	14,746	115						
	1963.....	402	289	13,979	113						

Note: Detailed figures may not add to totals because of independent rounding.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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**OFFICIAL BUSINESS**

**POSTAGE AND FEES PAID  
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20A-1

## INDUSTRY SERIES

### Meatpacking plants and sausages and other prepared meats SIC Codes 2011 and 2013

**preliminary  
report**

Meatpacking Plants (SIC 2011) include establishments primarily engaged in the slaughtering, for their own account or on a contract basis for the trade, of cattle, hogs, sheep, lambs, calves, horses and other animals except small game, for meat to be sold or to be used on the same premises in canning and curing, and in making

sausage, lard, and other products. Establishments primarily engaged in manufacturing sausages and meat specialties from purchased meats are classified in industry 2013; and establishments primarily engaged in killing, dressing, packing, and canning poultry, rabbits and other small game in industry 2015.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2011.--MEATPACKING PLANTS														
1967 Census....	32,707	966	172.1	1,265.8	131.9	276.6	926.9	2,185.9	13,504.3	15,621.5	110.4	486.6	99	85
1966 ASM <sup>1</sup> .....	(NA)	(NA)	173.4	1,207.4	132.0	278.1	880.3	2,021.3	13,045.3	15,040.8	104.1	451.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	179.8	1,210.5	136.9	285.9	883.1	2,056.4	11,879.5	13,909.2	101.0	435.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	182.7	1,226.5	138.6	310.1	902.5	2,127.9	10,858.7	12,973.3	94.7	416.1	(NA)	(NA)
1963 Census....	2,992	976	180.9	1,146.9	138.4	289.3	847.0	1,908.3	10,530.9	12,435.5	80.2	408.1	98	86
1962 ASM <sup>1</sup> .....	(NA)	(NA)	185.7	1,162.0	141.7	298.2	845.5	1,987.0	10,531.2	12,491.4	90.9	411.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	189.4	1,144.2	143.5	303.0	828.4	1,890.3	10,068.4	11,938.7	75.5	395.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	194.3	1,139.5	147.8	312.9	827.1	1,911.8	9,911.9	11,828.3	77.2	381.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	197.3	1,102.0	149.7	312.7	797.8	1,834.0	9,960.4	11,810.4	67.5	370.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	2,810	980	201.0	1,068.8	150.9	309.3	768.6	1,749.3	10,251.1	11,972.5	65.9	408.0	98	88
INDUSTRY 2013.--SAUSAGES AND OTHER PREPARED MEATS														
1967 Census....	1,375	562	54.4	378.9	40.3	83.8	250.8	740.8	2,256.2	3,001.4	30.3	127.0	95	46
1966 ASM <sup>4</sup> .....	(NA)	(NA)	48.4	316.6	35.6	74.7	208.3	624.6	1,888.6	2,502.4	33.2	119.6	(NA)	(NA)
1965 ASM <sup>4</sup> .....	(NA)	(NA)	49.0	307.8	36.6	75.3	205.1	607.3	1,721.7	2,323.1	51.6	109.8	(NA)	(NA)
1964 ASM <sup>4</sup> .....	(NA)	(NA)	50.9	314.5	38.0	81.5	213.0	596.9	1,699.8	2,296.6	29.8	101.6	(NA)	(NA)
1963 Census....	1,341	483	48.6	289.4	36.4	76.0	195.2	563.4	1,568.7	2,130.3	21.4	96.6	94	40
1962 ASM <sup>4</sup> .....	(NA)	(NA)	46.9	268.1	36.6	73.3	179.9	492.7	1,637.3	2,133.7	19.3	99.2	(NA)	(NA)
1961 ASM <sup>4</sup> .....	(NA)	(NA)	46.5	257.1	36.4	73.0	171.1	458.3	1,580.8	2,048.2	17.3	94.5	(NA)	(NA)
1960 ASM <sup>4</sup> .....	(NA)	(NA)	48.4	254.6	38.4	76.8	173.8	461.5	1,539.9	2,007.9	20.1	103.8	(NA)	(NA)
1959 ASM <sup>4</sup> .....	(NA)	(NA)	49.5	247.8	38.3	76.6	169.0	461.4	1,538.9	2,005.4	14.0	107.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,494	496	48.6	236.9	36.5	74.1	161.8	442.1	1,636.2	2,066.3	17.2	115.4	97	33

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

<sup>4</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary****Rocco C. Siciliano, Under Secretary****Harold C. Passer, Assistant Secretary for Economic Affairs****BUREAU OF THE CENSUS George Hay Brown, Director**Bureau of the Census  
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The Sausages and Other Prepared Meat Products Industry (SIC 2013) includes establishments primarily engaged in manufacturing sausages, cured meats, smoked meats, canned meats, frozen meats, and other prepared meats and meat specialties, from purchased carcasses and other materials. Sausage kitchens and other prepared meat plants operated by packing houses as separate establishments also are included in this industry. Establishments primarily engaged in killing, dressing, and packing poultry, rabbits, and other small game, and those canning poultry are classified in industry 2015. Establishments primarily engaged in the cutting up and resale of purchased fresh carcasses are classified in trade industries.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

Industries 2011 and 2013 are similar in many respects and for some purposes should be viewed as one industry. Prepared meats (smoked meats, sausages, canned meats, etc.) are produced by each industry; fresh meats, especially primal cuts and variety meats, are shipped by each. The distinguishing characteristic of industry 2011 is the slaughtering of livestock, and of industry 2013 the use of purchased meat material. Nearly all of the fresh meat used as a raw material by plants in industry 2013 is supplied by plants in industry 2011; in addition, a considerable volume of fresh meat material is sold or transferred between plants in industry 2011 for use in further processing.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as meatpacking plants amounted to \$15,621.5 million, an increase of 25 percent compared with 1963. Value added by manufacture at \$2,185.9 million in 1967 was 14 percent more than value added in 1963. Average employment in the industry showed a decrease of 5 percent from 1963 to a total of 172.1 thousand employees in 1967.

Of the \$15,621.5 million total value of shipments and other receipts of establishments classified as Meatpacking Plants, \$207.3 million were products primary to other industries; and \$701.0 million were receipts for miscellaneous activities.

The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Sausages and Other Prepared Meats Industry amounted to \$3,001.4 million, an increase of 41 percent compared with 1963. Value added by manufacture at \$740.8 million in 1967 was 32 percent more than value added in 1963. Average employment in the industry showed an increase of 12 percent from 1963 to a total of 54.4 thousand employees in 1967.

Of the \$3,001.4 million total value of shipments and other receipts of establishments classified as sausages and other prepared meats, \$117.9 million were products primary to other industries; and \$423.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

The total value of meatpacking and meat processing plant products shipped by all producers in 1967 was \$17,344.6 million of which \$14,713.2 million, or 85 percent, were shipped by plants classified in industry 2011, Meatpacking Plant Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 86 percent in 1963.

The total value of meat processing plant products shipped by all producers in 1967 was \$5,396.6 million of which \$2,460.0 million, or 46 percent, were shipped by plants classified in industry 2013, Meat Processing Plant Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 40 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



## 1967 CENSUS OF MANUFACTURES

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TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2011.--MEATPACKING PLANTS												
United States, total.....	2,707	966	172.1	1,265.8	131.9	276.6	926.9	2,185.9	13,504.3	15,621.5	110.4	180.9	1,908.3
New England.....	46	11	0.7	4.1	0.5	1.1	2.8	8.5	57.4	65.9	0.2	1.2	11.5
Massachusetts.....	19	5	0.3	1.6	0.2	0.4	1.2	4.1	27.5	31.6	0.1	0.3	3.4
Middle Atlantic.....	309	100	11.9	82.5	8.8	18.1	58.1	172.7	814.5	985.3	7.1	14.6	164.0
New York.....	85	23	3.1	22.1	2.3	4.7	15.0	51.9	167.1	218.3	2.0	4.1	48.0
New Jersey.....	35	13	1.4	9.3	1.1	2.2	7.3	23.1	162.3	185.6	0.6	3.0	36.7
Pennsylvania.....	189	64	7.4	51.1	5.4	11.3	35.7	97.7	480.2	577.2	4.5	7.5	79.3
East North Central....	569	198	32.0	245.9	24.6	51.6	179.0	399.6	2,314.7	2,678.0	26.0	36.1	397.1
Ohio.....	171	62	9.3	68.3	7.0	14.6	48.3	133.4	590.3	692.1	4.1	9.2	109.7
Indiana.....	90	26	4.8	36.9	3.6	7.9	25.7	59.0	303.4	361.9	3.2	7.6	74.9
Illinois.....	112	47	8.1	62.7	6.3	13.3	45.9	102.4	640.5	740.0	14.3	9.9	99.6
Michigan.....	127	40	2.7	18.4	2.1	4.2	13.3	22.9	267.8	290.6	1.2	2.7	34.7
Wisconsin.....	69	23	7.1	59.6	5.6	11.6	45.8	83.0	507.7	589.2	3.3	6.8	78.3
West North Central....	369	157	64.6	521.9	50.4	103.8	403.7	803.4	5,889.0	6,663.4	30.6	67.9	718.3
Minnesota.....	40	16	13.3	111.0	9.9	19.6	85.0	183.0	937.3	1,119.6	3.6	13.5	142.8
Iowa.....	67	39	22.9	185.9	18.5	38.3	147.6	260.1	2,200.6	2,446.9	9.7	23.6	266.4
Missouri.....	83	26	7.2	56.2	5.4	11.3	40.9	92.0	591.2	682.4	2.2	7.7	71.6
Nebraska.....	76	40	10.3	83.3	8.3	17.5	66.0	159.3	1,254.5	1,406.6	10.0	10.3	99.9
Kansas.....	70	24	6.0	47.4	4.4	9.4	34.9	64.2	536.9	593.7	4.1	8.1	74.5
South Atlantic.....	358	117	15.9	90.6	11.9	25.7	60.0	182.0	729.3	910.3	9.1	15.6	136.2
Maryland.....	31	10	2.1	13.4	1.5	2.5	8.5	24.3	76.9	100.4	(D)	2.4	22.6
Virginia.....	45	20	4.3	26.0	3.3	7.6	17.5	52.4	216.9	268.3	2.4	3.9	35.9
North Carolina.....	86	28	2.5	12.9	1.9	4.0	9.0	25.3	111.0	136.5	1.6	2.0	15.9
South Carolina.....	37	12	1.4	7.4	1.0	2.2	5.0	22.4	48.9	71.4	0.4	1.4	15.0
Georgia.....	90	22	3.2	18.2	2.4	5.3	11.5	29.6	140.6	170.7	2.1	3.2	23.6
Florida.....	34	18	1.8	9.7	1.4	3.1	6.6	21.7	106.4	128.6	1.8	1.9	17.5
East South Central....	226	76	12.1	77.3	9.1	21.0	53.4	140.4	665.7	806.9	10.8	11.5	96.2
Kentucky.....	69	17	2.5	18.8	1.8	4.2	13.1	35.2	128.1	164.4	(D)	2.7	27.3
Tennessee.....	68	26	4.9	32.8	3.6	8.3	22.4	59.1	305.8	363.9	2.6	4.6	34.7
West South Central....	375	122	14.2	85.7	10.9	23.3	59.6	167.0	825.9	988.9	10.0	14.4	147.8
Louisiana.....	66	12	0.9	4.8	0.7	1.5	3.2	13.7	33.8	47.5	0.3	1.0	13.4
Texas.....	199	76	10.2	61.1	7.8	16.4	43.0	113.3	622.3	733.0	4.6	10.0	93.9
Mountain.....	202	70	8.0	58.0	8.0	13.3	42.0	126.3	900.5	1,027.9	9.0	8.4	95.5
Colorado.....	54	18	3.8	27.9	3.0	6.2	21.6	67.3	528.3	595.9	(D)	4.0	46.6
Arizona.....	20	8	0.7	5.6	0.6	1.2	4.1	16.6	63.4	80.0	5.8	0.8	8.2
Utah.....	32	13	1.1	8.3	0.8	1.7	5.8	15.4	96.2	112.8	0.5	1.3	15.9
Pacific.....	251	116	12.4	99.8	9.3	18.6	67.9	186.0	1,307.2	1,494.9	6.7	11.1	141.7
Washington.....	59	22	2.8	21.1	2.2	4.4	15.6	42.2	210.9	253.5	1.3	2.3	29.0
California.....	125	75	8.3	69.9	6.0	12.3	45.8	126.3	998.0	1,126.1	4.9	7.1	96.5

See footnotes at end of table.

## 1967 CENSUS OF MANUFACTURES

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963—Continued

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
INDUSTRY 2013.--SAUSAGES AND OTHER PREPARED MEATS													
United States, total.....	1,375	562	54.4	378.9	40.3	83.8	250.8	740.8	2,256.2	3,001.4	30.3	48.6	563.4
New England.....	111	43	4.7	34.3	3.4	7.0	21.7	68.6	207.4	275.3	1.9	4.6	53.2
Maine.....	5	3	0.2	1.4	0.1	0.3	0.8	2.7	9.2	11.9	0.1	0.1	1.4
New Hampshire.....	8	5	0.4	2.1	0.3	0.6	1.6	4.8	16.2	20.6	0.1	0.3	2.3
Massachusetts.....	61	28	3.6	27.8	2.7	5.5	17.7	52.7	168.2	220.7	1.4	3.6	44.9
Middle Atlantic.....	332	161	14.1	102.6	10.5	22.0	68.5	189.1	587.8	775.5	8.5	12.3	135.9
New York.....	174	77	6.7	51.6	5.1	11.1	35.8	95.1	281.7	376.2	2.3	7.0	79.9
New Jersey.....	62	32	3.0	23.2	2.1	4.4	14.2	41.5	112.2	153.6	3.6	1.8	20.6
Pennsylvania.....	96	52	4.3	27.7	3.2	6.5	18.5	52.5	193.9	245.7	2.5	3.5	35.4
East North Central....	337	144	15.4	113.3	11.5	24.5	76.6	212.0	626.0	844.2	7.5	14.9	187.8
Ohio.....	57	25	2.3	16.1	1.7	3.7	10.7	29.1	80.9	110.2	(D)	1.8	22.3
Indiana.....	23	8	0.9	7.6	0.7	1.5	4.9	21.3	34.2	56.1	0.6	1.0	14.7
Illinois.....	127	51	7.5	56.6	5.9	12.5	40.6	96.1	348.7	450.5	2.8	7.5	98.2
Michigan.....	74	35	3.1	23.2	2.2	4.7	14.4	47.9	121.7	169.3	2.2	3.1	37.3
Wisconsin.....	56	25	1.5	9.8	1.0	2.2	6.0	17.6	40.4	58.0	(D)	1.5	15.3
West North Central....	95	40	4.2	25.6	3.3	6.8	17.4	52.1	151.5	203.3	2.1	3.3	35.5
Minnesota.....	23	14	1.5	9.0	1.3	2.4	6.3	14.7	47.2	61.6	0.6	1.0	10.3
Missouri.....	27	8	1.2	7.4	1.0	2.2	5.5	15.3	53.9	68.7	(D)	1.1	11.7
Kansas.....	9	5	0.4	2.9	0.3	0.6	1.8	9.5	16.1	25.6	(D)	(D)	(D)
South Atlantic.....	155	59	5.4	29.9	3.8	7.6	18.2	61.1	206.1	267.3	3.5	4.4	40.9
Maryland.....	19	11	1.7	11.3	1.2	2.3	7.5	21.4	62.4	83.8	1.0	1.8	18.0
Virginia.....	13	6	0.3	1.6	0.2	0.4	1.0	4.2	10.8	15.4	0.1	0.2	3.0
North Carolina.....	40	11	0.7	3.4	0.5	0.9	1.8	7.3	29.0	36.2	0.6	0.4	3.1
Georgia.....	34	9	0.6	2.9	0.3	0.9	1.5	6.6	17.4	24.1	0.2	0.5	7.1
Florida.....	34	15	1.7	8.3	1.2	2.5	5.3	16.3	71.6	87.6	1.4	0.9	6.4
East South Central....	63	12	0.9	5.3	0.7	1.3	3.0	11.8	34.5	46.4	0.8	0.8	8.7
Kentucky.....	16	2	0.1	0.5	0.1	0.1	0.3	1.1	2.1	3.2	(Z)	0.1	0.8
Tennessee.....	26	6	0.4	2.5	0.3	0.6	1.4	5.9	17.5	23.6	(D)	0.4	4.8
West South Central....	97	28	2.8	14.3	1.9	4.0	9.5	39.2	101.3	139.9	1.4	2.0	23.9
Louisiana.....	14	6	0.5	2.9	0.4	0.8	1.7	5.4	16.3	21.6	0.4	(D)	(D)
Texas.....	65	17	1.9	9.7	1.4	2.8	6.8	29.3	73.6	102.3	0.8	1.3	15.1
Mountain.....	35	9	0.7	4.0	0.6	1.2	3.2	7.6	22.6	30.4	(D)	0.5	5.8
Utah.....	7	2	0.1	0.6	0.1	0.2	0.4	1.3	2.2	3.6	0.1	(D)	(D)
Pacific.....	150	66	6.2	49.7	4.6	9.4	32.8	99.4	318.9	419.1	(D)	5.9	71.7
Washington.....	11	7	0.4	2.6	0.3	0.5	1.7	3.8	13.3	17.0	(D)	0.4	4.6
Oregon.....	13	1	0.1	0.7	0.1	0.2	0.5	1.2	4.6	5.8	(D)	(D)	(D)
California.....	118	55	5.6	46.0	4.2	8.6	30.4	93.7	299.7	394.4	3.2	5.1	65.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2011 --	MEATPACKING PLANT PRODUCTS, TOTAL <sup>1</sup> .....	.....	(X)	<sup>2</sup> 11,948.0	(X)	<sup>2</sup> 9,259.8
20111 --	Beef, not canned or made into sausage.....	Million lbs...	18,152.5	7,491.5	14,754.7	5,707.8
20111 12	Whole carcass beef.....	...do.....	13,401.2	5,483.7	10,636.8	4,098.4
20111 17	Primal and fabricated cuts.....	...do.....	2,379.7	1,080.6	2,123.7	910.1
20111 31	Boneless beef, including hamburger.....	...do.....	1,062.4	527.1	909.4	377.8
20111 51	Variety meats (edible organs).....	...do.....	774.6	170.5	593.6	120.9
20111 71	Other edible beef including corned beef.....	...do.....	85.9	44.3	94.4	47.1
20111 00	Beef, not canned or made into sausage, n.s.k.....	...do.....	<sup>3</sup> 448.7	185.3	396.8	153.5
20112 --	Veal, not canned or made into sausage.....	...do.....	638.9	310.3	727.2	310.8
20112 12	Whole carcass veal.....	...do.....	476.8	220.0	504.6	204.9
20112 17	Primal cuts fabricated cuts and boneless veal.....	...do.....	132.2	73.8	135.8	67.4
20112 61	Other edible veal including edible organs.....	...do.....	25.6	14.2	47.0	21.6
20112 00	Veal, not canned or made into sausage, n.s.k.....	...do.....	<sup>3</sup> 4.3	2.3	39.8	17.0
20113 --	Lamb and mutton, not canned or made into sausage.....	...do.....	712.7	312.1	786.7	300.1
20113 12	Whole carcass lamb and mutton.....	...do.....	557.7	250.8	608.6	232.1
20113 52	Primal cuts and all other edible lamb and mutton, except canned meats and sausage.....	...do.....	150.4	59.0	148.2	56.5
20113 00	Lamb and mutton, not canned or made into sausage, n.s.k.....	...do.....	<sup>3</sup> 4.6	2.3	29.9	11.4
20114 --	Pork, fresh and frozen.....	...do.....	7,894.3	2,785.8	7,487.2	2,202.5
20114 12	Whole carcass pork.....	...do.....	1,533.3	471.5	1,121.1	280.2
20114 17	Primal cuts, including trimmings.....	...do.....	5,752.9	2,178.2	5,699.7	1,787.0
20114 51	Variety meats (fresh edible organs).....	...do.....	549.0	101.3	467.8	76.9
20114 00	Pork, fresh and frozen, n.s.k.....	...do.....	<sup>3</sup> 59.1	34.8	198.5	58.4
20115 --	Lard <sup>4</sup> .....	...do.....	1,833.7	180.9	2,313.7	223.6
20115 13	Consumer sizes (containers of 3 lbs. or less).....	...do.....	483.5	57.7	484.8	56.0
20115 17	Commercial sizes (containers of more than 3 lbs.).....	...do.....	1,350.2	123.2	1,816.0	166.4
20115 00	Lard, n.s.k.....	...do.....	-	-	<sup>3</sup> 12.8	1.2
20119 --	Hides, skins, and pelts.....	1,000 units...	73.0	284.9	58.3	223.4
20119 11	Cattle.....	...do.....	33.7	225.0	26.2	156.4
20119 21	Calf.....	...do.....	5.6	24.3	5.9	22.3
20119 51	Sheep and lamb.....	...do.....	11.5	20.0	17.8	36.1
20119 61	Pig.....	...do.....	17.2	9.7	(X)	(X)
20119 98	Other hides, skins, and pelts.....	...do.....	4.5	4.0	7.5	5.0
20119 00	Hides, n.s.k.....	...do.....	<sup>3</sup> 0.5	1.9	0.9	3.6
2011X --	Other meatpacking products, except sausage casings.....	.....	936.8	99.1	(X)	87.8
2011X 11	Fresh and frozen meats, such as horse meat, goat meat, etc.....	Million lbs...	13.5	3.1	18.4	3.3
2011X 31	Pulled wool <sup>5</sup> .....	...do.....	345.4	8.6	(D)	(D)
2011X 41	Edible tallow and stearin <sup>6</sup> .....	...do.....	577.9	42.4	542.4	40.9
2011X 51	Glue stock (semimanufactured material to be made into glue).....	.....	(X)	(X)	(X)	(D)
2011X 55	Killing floor offal, scrap, and bones.....	.....	(X)	45.0	(X)	32.1
20110 00	Meatpacking plant products, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	353.1	(X)	203.8
20110 02	Meatpacking plant products, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	130.3		
2013- --	MEAT PROCESSING PLANT PRODUCTS, TOTAL <sup>1</sup> .....	.....	(X)	<sup>6</sup> 5,396.6	(X)	<sup>6</sup> 4,285.8
20116 --	Pork, processed or cured (not canned or made into sausage).....	Million lbs...	3,979.5	2,016.5	3,974.9	1,634.7
20136 --		...do.....	2,667.5	1,323.2	2,951.3	1,176.1
20136 --		...do.....	1,312.0	693.3	1,023.6	458.6
20116 12	Sweet pickled or dry cured (not smoked or cooked).....	...do.....	340.5	144.9	306.0	103.8
20136 12		...do.....	156.3	34.0	219.5	37.1
20116 22	Dry salt pork.....	...do.....	156.3	34.0	219.5	37.1
20136 22		...do.....	156.3	34.0	219.5	37.1
20116 31	Smoked pork (not otherwise cooked):					
20136 31	Hams and picnics, except canned.....	...do.....	1,350.3	705.2	1,363.0	594.1
20116 35		...do.....	386.0	174.0	347.0	120.0
20136 35	Slab bacon.....	...do.....	386.0	174.0	347.0	120.0
20116 41		...do.....	1,167.4	617.2	1,115.0	466.0
20136 41	Sliced bacon.....	...do.....	1,167.4	617.2	1,115.0	466.0
20116 52		...do.....	283.3	134.1	268.2	111.4
20136 52	Other smoked pork.....	...do.....	283.3	134.1	268.2	111.4

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2013- --	MEAT PROCESSING PLANT PRODUCTS--Continued					
20116 -- 20136 --	Pork, processed or cured (not canned or made into sausage)--Con.					
20116 61 20136 61	Boiled ham, barbecue pork and other cooked pork, except canned meat and sausage.....	Million lbs...	159.2	137.9	156.4	120.0
20116 00 20136 00	Pork processed or cured, n.s.k.....	...do.....	<sup>3</sup> 136.5	69.2	<sup>3</sup> 200.0	82.2
20117 -- 20137 --	Sausage and similar products (not canned) not made in meatpacking plants.....	...do.....	4,302.3	2,291.3	3,685.8	1,756.2
20117 -- 20137 --	Made in slaughtering plants.....	...do.....	2,072.9	1,018.1	1,876.1	850.6
20137 --	Made elsewhere.....	...do.....	2,229.4	1,273.2	1,809.7	905.6
20117 11 20137 11	Fresh sausage, pork sausage, breakfast links, etc.....	...do.....	714.0	355.6	560.8	243.4
20117 17 20137 17	Dry and semidry (salami, cervelat, pepperoni, summer sausage, pork roll, etc.).....	...do.....	254.6	189.9	226.9	157.7
20117 21 20137 21	Frankfurters and wieners.....	...do.....	1,162.5	576.3	1,112.5	496.5
20117 35 20137 35	Other sausage, smoked or cooked (bologna, liverwurst, Polish sausage, packaged luncheon meats, minced roll, smoked pork sausage, etc.).....	...do.....	1,649.8	911.5	1,451.3	701.0
20117 91 20137 91	Jellied goods and similar preparations, not canned (head cheese, meat loaves, scrapple, puddings, chili con carne, imitation sausage, etc.).....	...do.....	227.1	118.8	206.0	96.6
20117 00 20137 00	Sausage and similar products, n.s.k.....	...do.....	<sup>3</sup> 294.3	139.2	<sup>3</sup> 128.3	61.1
20118 -- 20138 --	Canned meats (except dog and cat food) containing 20 percent or more meat.....	...do.....	1,598.3	846.1	1,521.2	730.1
20118 -- 20138 --	Made in slaughtering plants.....	...do.....	870.9	491.0	966.6	482.2
20138 --	Made elsewhere.....	...do.....	727.4	355.1	554.6	247.9
20139 --	Natural sausage casings.....	.....	(NA)	83.4	(NA)	91.7
20139 11	Beef sausage casings.....	.....	(NA)	29.6	(NA)	11.7
20139 31	Hog sausage casings.....	.....	(NA)	24.5	(NA)	33.4
20139 51	Sheep and lamb sausage casings.....	.....	(NA)	12.2	(NA)	17.1
20139 61	Other animal casings.....	.....	(NA)	10.3	(NA)	4.8
20139 00	Natural sausage casings, n.s.k.....	.....	(NA)	6.8	(NA)	24.6
20130 00	Processed meat, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	114.7	(X)	73.2
20130 02	Processed meat, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	44.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

-- Represents zero. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Substantial quantities of these products are produced at nonmanufacturing establishments and are not included in these data.

<sup>2</sup>Excludes prepared meats made in slaughtering plants.

<sup>3</sup>Quantity estimated based on quantity-value relationship reported for other products.

<sup>4</sup>In the Census Current Industrial Reports Series M20K, "Fats and Oils", data are published for the production of various fats and oils. The production of lard as shown in this report amounted to 2,077.0 million pounds in 1967 and 2,473.0 million pounds in 1963. These data are compiled by the U.S. Department of Agriculture. The production of edible tallow shown in the M20K report was 577.8 million pounds for 1967 and 496.4 million pounds for 1963.

<sup>5</sup>Data represent the output of establishments classified in Industries 2011 and 2013. Detailed information was not obtained from establishments engaged primarily in wool pulling and classified in Industry 3999, Miscellaneous Products, N.E.C.

<sup>6</sup>Includes prepared meats made in slaughtering plants.

<sup>7</sup>Canned meat products containing less than 20% meat are included in the report for Industry 2032, Canned Specialties.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Description of materials	1967			1963		
		Number of head (1,000)	Quantity (million pounds)	Delivered cost (million dollars)	Number of head (1,000)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2011.--MEATPACKING PLANTS						
	Materials, containers, and supplies, total.....	(X)	(X)	12,768.7	(X)	(X)	10,007.4
013513	Cattle.....	28,902.1	( <sup>1</sup> )	6,796.2	23,748.6	24,461.1	4,980.8
013523	Calves.....	4,334.5	( <sup>1</sup> )	288.4	4,931.4	971.5	256.6
013943	Sheep and lambs.....	11,216.6	( <sup>1</sup> )	245.5	14,807.3	1,421.5	284.3
013633	Hogs.....	74,670.0	( <sup>1</sup> )	3,503.9	77,425.0	18,194.9	2,822.2
	Fresh and frozen meats:						
201111	Beef.....	(X)	705.5	287.1	(X)	536.6	192.0
201121	Veal.....	(X)	17.8	8.0	(X)	25.7	10.4
201131	Lamb.....	(X)	14.8	6.5	(X)	40.3	11.9
201141	Pork.....	(X)	833.2	284.0	(X)	1,239.6	390.6
201101	Meat materials for sausage and canning, not separable by species	(X)	440.3	146.1	(X)	334.7	112.4
201161	Processed pork--cured, smoked, etc.....	(X)	134.4	51.7	(X)	155.2	46.9
201102	Other purchased meat, materials (cured beef, cured lamb, goat meat, etc.).....	(X)	51.5	19.2	(X)	83.0	20.8
201191	Hides, skins, and pelts purchased.....	(X)	(X)	29.6	(X)	(X)	22.8
	Casings:						
201391	Animal casings purchased.....	(X)	(X)	12.4	(X)	(X)	14.2
307914	Synthetic casings.....	(X)	(X)	26.1	(X)	(X)	24.2
970099	All other materials, ingredients, containers, packaging materials and supplies.....	(X)	(X)	641.5	(X)	(X)	474.8
976000	Materials, etc., n.s.k. <sup>2</sup> .....	(X)	(X)	422.5	(X)	(X)	342.3

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2013.--SAUSAGES AND OTHER PREPARED MEATS				
	Materials, containers, and supplies, total.....	(X)	1,805.9	(X)	1,296.6
013513	Cattle.....	(X)	( <sup>3</sup> )	(X)	( <sup>3</sup> )
013523	Calves.....	(X)	( <sup>3</sup> )	(X)	( <sup>3</sup> )
013943	Sheep and lambs.....	(X)	( <sup>3</sup> )	(X)	( <sup>3</sup> )
013633	Hogs.....	(X)	( <sup>3</sup> )	(X)	( <sup>3</sup> )
	Fresh and frozen meats:				
201111	Beef.....	825.6	331.4	746.3	251.8
201121	Veal.....	27.1	12.4	36.8	14.7
201131	Lamb.....	37.6	13.2	25.6	7.3
201141	Pork.....	1,642.2	592.3	1,480.2	440.1
201101	Meat materials for sausage and canning, not separable by species.....	845.3	298.9	539.1	147.2
201161	Processed pork--cured, smoked, etc.....	291.0	117.4	184.9	61.6
201102	Other purchased meat, materials (cured beef, cured lamb, goat meat, etc.).....	38.1	13.7	91.1	30.2
201191	Hides, skins, and pelts purchased.....	(X)	0.6	(X)	( <sup>2</sup> )
	Casings:				
201391	Animal casings purchased.....	(X)	34.0	(X)	33.3
307914	Synthetic casings.....	(X)	25.2	(X)	23.6
970099	All other materials, ingredients, containers, packaging materials and supplies.....	(X)	263.6	(X)	173.1
976000	Materials, etc., n.s.k. <sup>2</sup> .....	(X)	103.2	(X)	113.8

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>A substantial number of establishments reported the quantity consumed data incorrectly. Therefore reliable data are not publishable at this time, but should be included in the trial release.<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.<sup>3</sup>Included in, All other materials, code 970099.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In each industry, 2011 and 2013, these small establishments accounted for approximately 1 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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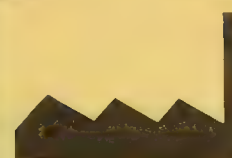
POSTAGE AND FEES  
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20A-2

## INDUSTRY SERIES

### Poultry dressing plants

SIC Code 2015

**preliminary  
report**

The Poultry and Small Game Dressing and Packing, Wholesale, Industry includes establishments primarily engaged in slaughtering, dressing, packing, freezing, and canning poultry, rabbits, and other small game for their own account or on a contract basis for the trade. This industry also includes the drying, freezing, and breaking of eggs; but not the cleaning, oil treating, packing and grading of eggs which are classified in industry 5044.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as poultry dressing plants amounted to

\$2,885.7 million, an increase of 29 percent compared with 1963. Value added by manufacture at \$572.4 million in 1967 was 39 percent more than value added in 1963. Average employment in the industry showed an increase of 19 percent from 1963 to a total of 83.4 thousand employees in 1967.

Of the \$2,885.7 million total value of shipments and other receipts of establishments classified as poultry dressing plants, \$34.1 million were products primary to other industries; and \$139.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (per cent)	Coverage ratio (per cent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2015.—POULTRY DRESSING PLANTS													
1967 Census....	839	511	83.4	310.4	76.0	146.3	257.7	572.4	2,322.6	2,885.7	57.7	130.3	98	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	75.2	263.2	68.2	134.1	217.0	559.3	2,209.9	2,754.1	43.6	109.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	72.2	232.0	65.4	127.4	191.9	465.8	2,024.3	2,490.2	31.9	93.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	71.3	218.8	64.8	123.6	181.5	422.2	1,908.8	2,329.5	21.3	95.8	(NA)	(NA)
1963 Census....	967	559	70.1	204.4	63.8	120.2	169.9	410.9	1,840.8	2,240.9	34.3	93.3	98	98
1962 ASM <sup>1</sup> .....	(NA)	(NA)	66.9	190.2	61.9	115.2	156.7	374.4	1,710.6	2,078.2	19.3	77.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	71.1	194.0	65.5	122.0	160.4	366.8	1,706.7	2,084.0	19.2	77.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	67.8	178.1	62.7	112.4	147.3	369.1	1,699.2	2,053.8	23.0	82.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	66.3	171.7	61.1	111.0	140.9	331.4	1,564.7	1,897.9	24.5	71.4	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,233	594	62.4	160.8	56.1	104.2	132.0	310.6	1,582.9	1,888.2	28.1	77.1	98	98

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE    Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

The total value of poultry dressing plant products shipped by all producers in 1967 was \$2,759.6 million of which \$2,712.4 million, or 98 percent, were shipped by plants classified in industry 2015, Poultry Dressing Plants, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 98 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
INDUSTRY 2015.—POULTRY DRESSING PLANTS													
United States, total.....	839	511	83.4	310.5	76.0	146.3	257.7	572.4	2,322.6	2,885.7	57.7	70.1	410.9
New England.....	16	8	2.2	9.3	1.8	3.6	7.3	13.8	66.4	80.4	1.1	2.4	18.6
Massachusetts.....	8	3	0.5	1.9	0.4	0.9	1.8	4.0	18.8	22.8	0.1	0.3	2.7
Middle Atlantic.....	89	44	4.9	20.7	4.4	8.6	16.6	40.6	142.8	184.0	2.5	4.1	24.7
New York.....	28	12	1.2	5.3	1.1	2.0	4.3	10.3	27.8	39.7	0.6	1.2	8.5
New Jersey.....	17	10	0.6	2.1	0.5	0.8	1.7	5.5	15.7	20.8	0.1	0.6	3.8
Pennsylvania.....	44	22	3.1	13.4	2.8	5.8	10.5	24.8	99.3	123.4	1.8	2.3	12.4
East North Central....	142	55	5.7	22.3	5.1	9.6	17.4	39.0	150.9	188.9	9.2	5.5	32.9
Ohio.....	55	20	1.5	5.7	1.3	2.4	4.3	7.8	41.9	49.2	(D)	1.2	7.8
Indiana.....	30	14	1.7	6.0	1.5	2.9	4.7	12.4	40.3	52.6	0.9	1.5	8.3
Illinois.....	23	8	1.0	4.3	0.8	1.6	3.2	8.9	19.6	27.8	0.3	0.9	5.9
Michigan.....	14	3	0.3	1.1	0.3	0.5	0.9	1.8	4.0	5.7	0.1	0.5	2.3
Wisconsin.....	20	9	1.3	5.1	1.2	2.2	4.2	8.3	45.2	53.7	(D)	1.3	8.6
West North Central....	122	90	12.5	46.8	11.5	21.8	38.9	86.2	322.2	405.3	8.2	11.0	62.8
Minnesota.....	30	26	4.6	17.2	4.3	8.0	14.5	26.8	114.9	139.5	2.6	3.9	20.7
Missouri.....	33	25	2.7	10.2	2.5	4.6	8.3	19.6	76.0	96.2	(D)	2.3	12.4
Nebraska.....	15	11	2.4	8.6	2.3	4.5	7.7	19.4	43.9	62.2	0.8	2.0	11.4
Kansas.....	10	6	0.7	3.3	0.6	1.2	2.2	6.5	23.0	28.4	(D)	(D)	(D)
South Atlantic.....	164	117	27.6	99.0	25.3	49.3	83.1	172.1	754.6	922.3	23.7	20.7	120.9
Delaware.....	9	7	2.3	8.7	2.1	4.4	7.6	16.0	58.8	75.0	1.3	1.4	8.7
Maryland.....	17	13	3.7	13.7	3.4	6.5	11.5	22.7	101.5	123.2	(D)	3.4	20.4
Virginia.....	17	12	2.8	10.2	2.7	5.4	9.2	18.3	92.9	111.6	2.5	2.3	15.0
North Carolina.....	45	27	6.4	21.4	5.7	11.0	17.2	40.8	175.1	214.6	3.7	4.8	29.3
Georgia.....	40	34	9.0	33.0	8.2	16.4	27.8	52.8	256.9	306.4	11.6	7.3	40.4
Florida.....	17	13	1.2	4.1	1.1	2.0	3.3	10.1	34.7	44.5	0.4	0.8	4.0
East South Central....	71	51	9.6	33.6	8.5	17.3	28.3	58.3	274.4	333.5	3.3	9.5	48.2
Kentucky.....	8	5	0.4	1.5	0.4	0.8	1.3	1.4	13.8	15.2	(Z)	0.5	2.6
Tennessee.....	10	6	1.2	4.6	1.0	1.9	3.6	7.3	34.9	42.3	0.8	1.3	8.1
Alabama.....	32	23	4.5	15.5	4.1	8.6	13.9	31.5	136.3	168.5	1.3	4.5	23.3
Mississippi.....	21	17	3.6	11.9	3.0	6.1	9.5	18.0	89.4	107.5	1.2	3.2	14.2
West South Central....	110	82	14.0	47.6	13.0	24.9	41.1	100.3	389.8	488.0	6.9	10.9	54.8
Arkansas.....	34	31	7.5	26.3	7.1	14.1	23.6	51.2	203.6	253.4	4.4	5.2	23.6
Louisiana.....	11	9	1.6	5.3	1.5	2.5	4.1	11.5	50.2	61.1	0.9	1.0	5.4
Oklahoma.....	7	5	0.6	1.9	0.6	1.0	1.7	5.4	14.9	20.3	0.3	0.6	2.3
Texas.....	58	37	4.3	14.1	3.8	7.3	11.7	32.3	121.1	153.1	1.3	4.2	23.5
Mountain.....	22	7	0.7	2.6	0.8	1.2	2.1	7.7	18.7	26.3	(D)	1.0	3.3
Utah.....	6	3	0.3	0.7	0.3	0.4	0.6	3.3	3.9	7.1	(Z)	0.4	0.5
Pacific.....	103	57	6.2	28.4	5.5	9.8	22.9	54.5	202.7	256.9	(D)	5.1	44.8
Washington.....	15	9	0.9	4.7	0.8	1.5	4.1	5.6	26.1	32.1	(D)	0.8	7.1
California.....	75	39	4.5	20.7	4.0	7.3	16.3	43.4	152.6	195.9	1.7	3.8	34.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2015- --	POULTRY DRESSING PLANT PRODUCTS, TOTAL <sup>1</sup> .....	.....	(X)	2,759.6	(X)	2,109.6
20151 --	Hens (or fowl) and chickens.....	Million lbs....	6,561.6	1,784.2	5,717.8	1,480.0
20151 11	Hens (or fowl) and chickens, other than young chickens:					
20151 15	New York dressed (dressed weight).....	...do.....	2 <sup>1</sup> ,144.4	281.0	316.1	69.6
	Eviscerated or drawn (eviscerated weight).....	...do.....			588.2	152.3
20151 31	Young chickens (including commercial broilers, fryers, roasters, and capons):					
20151 35	New York dressed (dressed weight).....	...do.....	2 <sup>4</sup> ,972.7	1,382.3	295.1	82.6
	Eviscerated or drawn (eviscerated weight) including sectioned.	...do.....			4,170.4	1,085.4
20151 00	Hens (or fowl) and other chickens, n.s.k.....	...do.....	3 <sup>4</sup> 44.5	120.9	3 <sup>4</sup> 47.9	90.0
20153 --	Turkeys.....	...do.....	1,566.2	505.3	1,138.2	371.9
20153 12	Fryer-roaster turkeys (usually under 16 weeks of age) (dressed weight).....	...do.....	58.6	17.4	55.1	17.3
20153 13	Young turkeys (mature) (usually 5 to 7 months of age):					
20153 16	New York dressed (dressed weight).....	...do.....	2 <sup>1</sup> ,409.9	458.0	57.4	17.3
	Eviscerated or drawn (eviscerated weight) including sectioned.	...do.....			942.2	312.4
20153 18	Old turkeys (breeders) (usually over 15 months of age) (dressed weight).....	...do.....	33.7	9.2	34.9	9.1
20153 00	Turkeys, n.s.k.....	...do.....	3 <sup>6</sup> 4.0	20.7	3 <sup>4</sup> 8.5	15.9
20154 --	Processed poultry, except soups.....	1,000 cases....	(X)	141.8	(X)	39.1
20154 13	Canned poultry:					
	10 oz. and under.....	1,000 cases of 48.....	943.4	17.0	1,075	12.6
20154 15	40.1 oz. to 60 oz.....	1,000 cases of 12.....	566.9	5.3	681	6.4
20154 19	Other sizes.....	1,000 cases....	2,057.1	15.4	1,091	10.0
20154 25	Smoked or cooked poultry, including deboned.....	Million lbs....	4 <sup>1</sup> 64.7	5 <sup>1</sup> 00.3	(NA)	(NA)
20154 00	Processed poultry, n.s.k.....	.....	(X)	3.8	(X)	10.1
20155 --	Other poultry and small game.....	Million lbs....	46.5	19.7	40.9	14.3
20155 13	Ducks (dressed weight).....	...do.....	34.3	13.8	36.9	12.3
20155 15	Other poultry and small game killed in this establishment (geese, rabbits, etc.) (dressed weight).....	...do.....	3.0	2.0	2.8	1.5
20155 00	Other poultry and small game, n.s.k.....	...do.....	3 <sup>9</sup> 2.2	3.9	3 <sup>1</sup> 3	0.4
20156 --	Liquid, dried, and frozen eggs.....	.....	(X)	163.6	(X)	139.7
20156 11	Eggs, dried:					
20156 13	Whites.....	Million lbs....	11.8	12.0	11.0	11.3
20156 15	Yolks.....	...do.....	12.7	12.7	8.3	8.6
20156 17	Whole.....	...do.....	20.4	19.7	17.9	17.3
	Mixed.....	...do.....	12.9	10.3	7.1	6.6
20156 51	Eggs, frozen or liquid:					
20156 53	Whites.....	...do.....	99.8	15.6	350.7	89.0
20156 55	Yolks.....	...do.....	33.9	12.9		
20156 57	Whole.....	...do.....	91.6	22.9		
	Mixed.....	...do.....	102.6	33.0		
20156 00	Liquid, dried, and frozen eggs, n.s.k.....	.....	(X)	24.5	(X)	6.9
20150 00	Poultry dressing plant products, n.s.k. (For companies with 10 or more employees. See Note).....	.....	(X)	115.4	(X)	64.7
20150 02	Poultry dressing plant products, n.s.k. (For companies with less than 10 employees. See Note).....	.....	(X)	29.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable. (NA) Not available.

<sup>1</sup>Substantial quantities of poultry and small game are killed and dressed for commercial markets, on farms, and at retail and wholesale establishments and are not included in these data.

<sup>2</sup>In 1967, a substantial number of poultry dressing plants reported their shipments of eviscerated poultry as New York dressed. As a result separate data are not available.

<sup>3</sup>Quantity estimated based on average quantity-value relationship of other products in the product class or industry.

<sup>4</sup>A large number of firms reported their shipments in thousand pounds rather than 1,000 cases as originally requested. Those reporting in units of 1,000 cases, which accounted for approximately 15 percent, have been adjusted to million pounds based on the industry average for reporting mills.

<sup>5</sup>Prior to 1967, data were not collected separately for product code 2015425, Smoked or cooked poultry, including deboned. A review of similar reports filed in the 1963 census, and the annual survey of manufactures (ASM) for 1964-66 shows that the figures for a large number of establishments in 1963 were included in product code 2015100, Hens (or fowl) and chickens, n.s.k., and product code 2015300, Turkeys, n.s.k. Subsequently, data in the ASM for 1964-66 were shown in product class 20151 and 20154. A review of reports filed in the 1966 ASM for these same establishments shows that approximately \$34 million was included in product class 20151 and \$36 million in product class 20153. Data for prior years are not available.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2015.—POULTRY DRESSING PLANTS					
	Materials, parts, and supplies, total.....		(X)	2,191.0	(X)	1,743.8
	Poultry killed:					
013011	Young chickens (including commercial broilers).....	Live weight				
		million lbs.....	8,294.8	1,232.0	6,174.8	946.6
013021	Hens (or fowl) and other chickens.....	do.....	671.6	69.7	617.8	79.6
013431	Turkeys.....	do.....	1,892.6	393.8	1,197.6	272.0
013435	Other poultry and small game (including ducks, geese, rabbits, etc.).....		(X)	11.7	(X)	10.8
	Other materials Used:					
201501	Dressed poultry purchased as such.....	Dressed weight				
		million lbs.....	346.5	91.9	256.3	66.5
013451	Shell eggs.....	1,000 cases				
		(30 doz.).....	15,548.2	114.8	12,423.8	109.4
970099	All other materials, ingredients, containers, and supplies.....		(X)	176.5	(X)	150.9
976000	All other materials, parts, and supplies, n.s.k. <sup>1</sup> .....		(X)	100.6	(X)	107.9

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed material data. For 1967 this includes estimates for companies that were not mailed report forms.

(X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2015, these small establishments accounted for approximately 1 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "allemmployee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

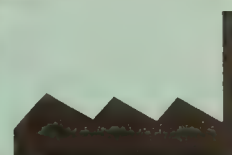
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20B-1

## INDUSTRY SERIES

### Creamery butter

SIC Code 2021

**preliminary  
report**

The Creamery Butter Industry includes establishments primarily engaged in manufacturing creamery butter.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Creamery Butter Industry amounted to \$999.9 million, an increase of 1.1 percent compared with 1963. Value added by manufacture at \$118.0 million in 1967 was 11.1 percent less

than value added in 1963. Average employment in the industry showed a decrease of 25.0 percent from 1963 to a total of 9.0 thousand employees in 1967.

Of the \$999.9 million total value of shipments and other receipts of establishments classified as manufacturers of creamery butter, \$265.0 million were products primary to other industries; and \$72.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 71 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 69 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2021.--CREAMERY BUTTER														
1967 Census....	3546	141	9.0	47.0	6.7	14.5	32.7	118.0	878.1	999.9	10.3	33.6	71	78
1966 ASM <sup>1</sup> .....	(NA)	(NA)	9.4	46.5	7.0	16.3	33.3	125.7	863.5	975.6	10.2	36.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.4	48.5	7.4	17.3	34.2	117.1	822.1	943.0	9.9	24.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	11.3	52.9	8.0	19.1	35.6	160.8	925.1	1,080.4	*16.1	32.2	(NA)	(NA)
1963 Census....	766	178	12.0	52.9	8.6	19.5	37.0	132.7	854.6	988.8	9.9	28.2	69	77
1962 ASM <sup>1</sup> .....	(NA)	(NA)	15.8	73.6	10.8	27.6	50.0	160.9	1,124.7	1,294.4	*26.1	47.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	16.1	71.0	10.7	28.0	48.8	158.4	1,062.0	1,218.8	*19.6	39.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	16.8	67.6	11.9	27.6	45.8	154.3	956.4	1,108.2	*12.5	36.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	17.3	66.8	12.5	27.4	45.2	151.5	909.7	1,062.6	*16.1	34.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,058	228	17.3	62.9	12.3	25.6	42.3	147.2	875.3	1,023.5	17.1	33.6	70	80

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of creamery butter shipped by all producers in 1967 was \$852.0 million of which \$662.1 million, or 78 percent, were shipped by plants classified in industry 2021, Creamery Butter, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 77 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2021.--CREAMERY BUTTER												
United States, total.....	546	141	9.0	47.0	6.7	14.5	32.7	118.0	878.1	999.9	10.3	12.0	132.7
Northeast.....	17	6	0.3	1.9	0.3	0.6	1.4	5.9	42.6	48.8	0.8	0.3	4.0
Middle Atlantic.....	13	6	0.3	1.8	0.3	0.6	1.4	5.7	42.4	48.5	0.8	(D)	(D)
New York.....	8	4	0.3	1.5	0.2	0.5	1.2	5.0	35.9	41.2	(D)	(D)	(D)
Pennsylvania.....	5	2	0.1	0.3	0.1	0.1	0.2	0.7	6.5	7.3	(D)	(D)	(D)
East North Central.....	104	41	2.5	14.2	1.8	4.0	10.0	36.1	293.4	330.0	4.2	3.7	47.6
Ohio.....	9	4	0.2	1.3	0.1	0.3	0.8	2.8	22.3	25.2	(D)	0.4	3.5
Michigan.....	18	5	0.4	2.4	0.3	0.7	2.0	5.1	37.8	42.6	0.2	0.3	2.5
Wisconsin.....	58	24	1.6	8.6	1.1	2.4	5.9	24.4	198.3	222.5	3.7	2.3	36.5
West North Central.....	365	74	5.1	24.8	3.8	8.5	17.6	61.9	451.1	513.4	4.5	6.5	66.4
Minnesota.....	195	31	2.3	11.2	1.8	4.0	8.2	32.6	242.1	274.4	2.7	2.6	28.2
Iowa.....	72	19	1.2	5.6	0.9	2.1	4.1	11.5	92.0	103.7	0.8	1.6	13.7
Missouri.....	9	4	0.3	1.3	0.2	0.4	1.0	1.4	18.7	20.6	0.1	0.3	3.0
North Dakota.....	42	4	0.5	2.4	0.3	0.6	1.5	3.4	25.7	29.1	0.4	0.7	7.3
South Dakota.....	16	5	0.3	1.5	0.2	0.5	0.9	5.1	23.2	28.3	0.1	0.4	4.2
Nebraska.....	22	8	0.3	1.6	0.2	0.6	1.0	5.6	30.2	35.9	0.3	0.7	8.7
Kansas.....	9	3	0.2	1.3	0.2	0.3	0.8	2.3	19.2	21.4	0.1	0.3	1.3
South.....	17	10	0.5	2.6	0.3	0.7	1.5	6.5	41.2	49.6	0.3	0.5	4.8
East South Central...	6	5	0.2	1.3	0.2	0.4	0.8	4.0	26.2	32.0	0.2	(D)	(D)
Mountain.....	28	5	0.4	1.8	0.3	0.5	1.2	4.4	29.4	34.4	0.1	0.7	6.9
Idaho.....	7	5	0.3	1.3	0.2	0.4	0.9	3.1	24.5	28.2	0.1	0.5	5.2
Pacific.....	15	5	0.2	1.7	0.1	0.3	1.0	3.2	20.4	23.7	0.4	0.3	3.0
California.....	5	4	0.1	1.3	0.1	0.2	0.8	5.2	16.8	19.5	0.3	0.2	2.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2021- --	CREAMERY BUTTER, TOTAL.....	Million lbs....	1,257.1	852.0	1,396.6	820.4
20210 13	Shipped in bulk (containers over 3 pounds).....	...do.....	782.1	522.9	962.6	554.8
20210 15	Shipped in consumer packages (containers 3 pounds or less).....	...do.....	271.4	189.6	312.3	191.6
20210 21	Anhydrous butterfat.....	...do.....	12.2	10.0	13.1	10.3
20210 00	Butter and related products, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	<sup>1</sup> 148.7	100.6	} <sup>1</sup> 108.5	63.8
20210 02	Butter and related products, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	<sup>1</sup> 42.7	28.9		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

<sup>1</sup>Quantity estimated based on quantity-value relationship for the products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2021.--CREAMERY BUTTER					
	Materials, ingredients, containers, and supplies consumed, total.....		(X)	809.1	(X)	784.0
013205	Whole milk .....	Million cwt.....	113.6	465.1	145.7	475.7
202612	Fluid skim milk.....	...do.....	10.9	15.6	14.4	14.6
202613	Cream.....	...do.....	5.0	165.4	7.6	161.1
202101	Butter.....	Million lbs.....	47.5	32.7	25.9	13.3
202401	Ice cream mix, sherbet mix, and ice milk mix.....	1,000 gals.....	(D)	(D)	94.5	1.0
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	(X)	( <sup>2</sup> )	757.4	8.0
202210	Natural cheese other than cottage.....	Million lbs.....	(D)	(D)	3.5	1.2
202301	Condensed and evaporated milk.....	...do.....	20.8	1.4	38.9	1.4
202311	Dried milk.....	...do.....	16.3	3.2	8.4	1.2
970099	All other materials, ingredients, containers, and supplies.....		(X)	40.9	(X)	35.2
976000	Materials, n.s.k. <sup>1</sup> .....		(X)	83.1	(X)	71.3

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

<sup>2</sup>Included with material code 970099.

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This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2021, these small establishments accounted for approximately 4 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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OFFICIAL BUSINESS





# 1967 CENSUS OF MANUFACTURES

MC67(P)-20B-2



## INDUSTRY SERIES

### Cheese, natural and processed

SIC Code 2022

**preliminary  
report**

The Cheese, Natural and Processed, Industry includes establishments primarily engaged in manufacturing all types of natural cheese (except cottage cheese industry 2026), processed cheese, cheese foods, and cheese spreads.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Cheese, Natural and Processed, Industry amounted to \$1,709.8 million, an increase of 46.0 percent compared with 1963. Value added by manufacture at \$225.3 million in 1967 was 25.4

percent more than value added in 1963. Average employment in the industry showed an increase of 11.7 percent from 1963 to a total of 20.1 thousand employees in 1967.

Of the \$1,709.8 million total value of shipments and other receipts of establishments classified as manufacturers of natural and processed cheese, \$79.2 million were products primary to other industries; and \$91.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(see appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2022.--CHEESE, NATURAL AND PROCESSED													
1967 Census....	1,031	239	20.1	103.8	16.6	33.9	80.1	225.3	1,489.0	1,709.8	17.3	134.4	95	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	19.3	94.5	15.6	34.5	72.4	246.0	1,320.5	1,552.2	13.4	147.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	18.6	86.5	15.1	31.9	66.6	207.7	1,125.3	1,324.7	13.9	114.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	17.9	82.8	14.7	31.5	64.3	190.6	1,038.3	1,225.6	11.8	114.2	(NA)	(NA)
1963 Census....	1,138	206	18.0	78.7	14.9	31.1	61.8	179.7	995.3	1,170.8	15.9	106.3	93	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	17.6	73.3	14.8	30.2	56.9	175.0	927.8	1,107.0	12.1	92.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	18.2	73.0	15.3	32.0	57.1	169.7	946.0	1,110.1	11.0	114.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	18.2	68.9	15.0	31.1	54.1	161.1	829.8	994.0	10.2	101.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	17.1	63.3	14.2	28.9	50.1	137.7	755.0	893.3	17.0	83.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,310	195	17.0	63.0	14.1	28.5	49.8	133.0	743.6	873.6	13.7	82.0	90	96

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

The total value of natural and processed cheese shipped by all producers in 1967 was \$1,568.2 million of which \$1,538.7 million, or 98 percent, were shipped by plants classified in industry 2022, Cheese, Natural and Processed, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	All em- ployees  (1,000)	Value added by manufac- ture  (million dollars)
	Total	With 20 employ- ees or more (number)	Number	Payroll  (million dollars)	Number	Man-hours  (millions)	Wages  (million dollars)						
INDUSTRY 2022.--CHEESE, NATURAL AND PROCESSED													
United States, total.....	1,031	239	20.1	103.7	16.6	33.9	80.1	225.3	1,488.9	1,709.8	17.3	18.0	179.7
Northeast.....	101	34	2.7	13.6	2.0	4.1	9.6	31.0	162.9	193.8	1.8	2.4	23.4
New York.....	50	18	1.1	5.9	0.9	1.8	4.4	12.7	58.7	72.0	(D)	1.2	11.4
Pennsylvania.....	22	8	1.0	5.0	0.7	1.5	3.6	12.9	71.0	83.1	0.8	0.8	8.3
East North Central....	674	106	10.0	51.5	8.5	17.4	40.6	121.4	738.6	856.4	9.5	9.4	101.1
Ohio.....	31	8	0.9	4.7	0.7	1.7	3.8	10.3	35.1	46.0	0.4	0.8	8.9
Indiana.....	10	5	0.3	1.9	0.2	0.5	1.3	4.1	14.1	18.3	1.1	0.4	3.6
Illinois.....	46	16	1.1	6.2	0.8	1.6	4.3	12.3	80.6	93.7	0.4	0.9	9.4
Michigan.....	19	5	0.3	1.4	0.2	0.4	1.0	2.6	14.2	16.7	0.1	0.2	1.6
Wisconsin.....	568	72	7.5	37.4	6.5	13.1	30.3	92.1	594.7	681.8	7.4	7.0	77.6
West North Central....	129	47	3.9	21.1	3.2	6.9	16.6	40.0	391.1	431.1	4.3	3.0	29.2
Iowa.....	37	11	0.6	2.6	0.5	1.0	2.0	5.6	36.3	41.7	0.8	(D)	(D)
Missouri.....	29	16	1.6	8.5	1.2	2.5	6.2	14.7	163.0	176.7	1.2	1.4	13.5
Kansas.....	11	2	0.1	0.7	0.1	0.3	0.5	1.5	7.2	8.7	0.3	(D)	(D)
South.....	61	31	1.8	9.1	1.5	2.9	6.8	16.5	119.5	135.2	0.5	2.0	15.6
Kentucky.....	15	11	0.5	2.3	0.4	0.7	1.7	3.8	25.0	29.0	0.1	0.5	6.3
Mountain.....	34	15	1.2	5.6	1.0	1.9	4.4	8.0	54.8	64.0	1.0	0.6	4.9
Idaho.....	21	8	0.7	3.6	0.6	1.1	2.9	4.2	37.4	42.8	(D)	0.4	3.5
Utah.....	7	3	0.3	1.1	0.3	0.5	1.0	1.9	11.9	13.7	0.2	(D)	(D)
Pacific.....	31	6	0.5	2.8	0.4	0.7	2.1	8.5	22.0	29.4	0.2	0.5	5.5
Washington.....	4	1	0.1	0.4	0.1	0.1	0.3	1.6	4.7	6.3	(Z)	(D)	(D)
Oregon.....	12	2	0.2	1.0	0.2	0.3	0.8	3.6	9.0	11.4	0.1	0.1	1.0
California.....	15	3	0.2	1.4	0.2	0.3	1.0	3.3	8.3	11.7	0.1	0.3	4.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2022- --	CHEESE, NATURAL AND PROCESSED, TOTAL.....		(X)	1,568.2	(X)	1,070.0
20221 01	Natural cheese (Italian, grated cheddar, brick, cream, Swiss, etc.).....	million lbs...	1,736.0	829.1	1,781.3	681.5
20222 --	Process cheese and related products.....		(X)	739.1	(X)	388.5
20222 11	Process cheese.....	million lbs...	869.9	426.5	611.7	241.2
20222 13	Cheese food.....	do.....	86.9	39.5	120.1	38.0
20222 15	Cheese spread.....	do.....	246.7	90.8	103.8	37.2
20222 19	Other related cheese products.....	do.....	83.0	32.5	17.0	8.0
20222 00	Process cheese and related products, n.s.k.....		(X)	5.7		
20220 00	Natural and process cheese and related products, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	92.8	(X)	64.1
20220 02	Natural and process cheese and related products, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	51.3		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2022.--CHEESE, NATURAL AND PROCESSED					
	Materials, containers and supplies, total.....		(X)	1,393.5	(X)	932.4
013205	Whole milk.....	million cwt.....	132.9	551.5	122.9	403.9
202612	Fluid skim milk.....	do.....	3.9	5.7	5.4	5.5
202613	Cream.....	do.....	1.0	32.5	1.1	30.9
202101	Butter.....	million lbs.....	(D)	(D)	(D)	(D)
202301	Condensed and evaporated milk.....	do.....	13.6	0.9	14.0	0.6
202311	Dried milk.....	do.....	28.3	5.2	12.6	2.0
202210	Natural cheese, other than cottage cheese.....	do.....	1,260.4	575.3	848.3	312.0
202401	Ice cream mix, sherbet mix, and ice milk mix.....	1,000 gals.....	(D)	(D)	(D)	(D)
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	27.3	0.3	54.4	0.6
970099	All other materials and components containers, and supplies.....		(X)	120.3	(X)	78.4
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	99.2	(X)	97.1

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 222, these small establishments accounted for approximately 3 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**WASHINGTON, D.C. 20233**

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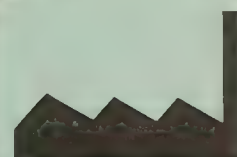
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20B-3

## INDUSTRY SERIES

### Condensed and evaporated milk

SIC Code 2023

**preliminary  
report**

The Condensed and Evaporated Milk Industry includes establishments primarily engaged in manufacturing condensed and evaporated milk and related products, including ice cream mix and ice milk mix made for sale as such and dry milk products.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Condensed and Evaporated Milk Industry amounted to \$1,204.3 million, an increase of 28.5 percent compared with 1963. Value added by manufacture at \$334.8 million in 1967 was 41.7 percent

more than value added in 1963. Average employment in the industry showed an increase of 4.1 percent from 1963 to a total of 12.8 thousand employees in 1967.

Of the \$1,204.3 million total value of shipments and other receipts of establishments classified as engaged in manufacturing condensed and evaporated milk, \$200.3 million were products primary to other industries; and \$34.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 83 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 80 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2023.--CONDENSED AND EVAPORATED MILK														
1967 Census....	291	168	12.8	80.6	9.9	20.7	59.4	334.8	863.8	1,204.3	21.0	66.9	83	71
1966 ASM <sup>1</sup> .....	(NA)	(NA)	12.3	73.3	9.6	20.3	54.1	309.8	802.5	1,099.5	13.6	63.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	12.5	73.1	9.8	20.8	53.8	285.1	755.7	1,050.1	21.2	50.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	12.7	71.7	9.9	21.9	53.8	297.6	734.7	1,020.9	17.4	59.1	(NA)	(NA)
1963 Census....	281	166	12.3	67.0	9.5	20.1	50.4	236.2	699.4	937.9	12.1	46.8	80	66
1962 ASM <sup>1</sup> .....	(NA)	(NA)	12.2	66.8	9.7	20.0	47.9	248.7	688.6	963.2	13.4	51.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	13.2	67.9	10.4	21.3	48.3	265.4	756.8	1,036.8	14.3	58.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	13.9	71.8	10.8	22.3	49.6	284.9	670.1	935.7	14.1	58.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	63.7	11.1	23.2	48.4	217.7	636.2	850.7	13.6	48.6	(NA)	(NA)
1958 Census <sup>2</sup> ...	313	202	13.4	61.4	10.8	23.2	46.5	202.7	613.7	820.6	12.7	46.5	84	69

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of condensed and evaporated milk shipped by all producers in 1967 was \$1,363.1 million of which \$969.1 million, or 71 percent, were shipped by plants classified in industry 2023, Condensed and Evaporated Milk, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 66 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(see appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2023.--CONDENSED AND EVAPORATED MILK													
United States, total.....	291	168	12.8	80.6	9.9	20.7	59.4	334.8	863.8	1,204.3	21.0	12.3	236.2
Northeast.....	51	28	1.6	9.3	1.1	2.3	6.2	33.1	98.4	132.0	1.3	0.9	17.1
New York.....	28	12	0.8	4.7	0.6	1.2	3.4	19.6	55.4	75.3	(D)	(D)	(D)
Pennsylvania.....	16	12	0.5	2.9	0.4	0.8	2.0	9.5	32.6	42.1	(D)	(D)	(D)
East North Central....	100	62	5.2	34.0	4.1	8.6	25.1	146.3	309.1	456.6	12.9	5.5	118.7
Ohio.....	14	10	1.0	5.9	0.8	1.6	4.5	23.1	45.4	69.0	(D)	0.9	18.5
Michigan.....	16	9	1.0	6.7	0.8	1.6	4.9	28.6	48.0	76.6	1.0	1.1	26.7
Wisconsin.....	42	30	2.4	15.6	1.9	4.0	11.8	71.8	165.2	236.9	3.1	2.3	50.1
West North Central....	55	31	2.9	17.6	2.3	5.0	13.4	85.8	247.5	335.7	4.7	2.9	38.3
Minnesota.....	26	18	1.2	6.7	0.9	2.0	4.5	14.8	118.6	133.6	2.0	1.5	18.8
Missouri.....	9	6	0.9	5.5	0.8	1.5	4.4	13.8	60.3	76.0	0.9	0.8	9.9
South.....	48	26	1.9	11.4	1.4	2.9	8.1	45.0	121.5	167.7	1.3	1.9	40.8
Tennessee.....	10	6	0.5	2.7	0.4	0.7	2.0	11.1	24.2	35.9	0.3	0.5	9.3
Mississippi.....	4	4	0.1	0.7	0.1	0.2	0.6	6.4	10.8	17.0	(Z)	(D)	(D)
West South Central..	7	4	0.3	2.0	0.2	0.5	1.5	7.4	19.2	26.4	0.3	0.3	3.8
West.....	37	21	1.1	8.4	0.9	1.9	6.6	24.6	87.3	112.3	0.8	1.1	21.4
California.....	19	14	0.7	5.7	0.6	1.3	4.6	12.5	53.9	67.1	0.4	0.6	10.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2023- --	CONDENSED AND EVAPORATED MILK, TOTAL.....		(X)	1,363.1	(X)	1,104.5
20231 --	Dry milk products.....	Million pounds	2,863.9	634.0	3,212.3	504.4
	Shipped in consumer type packages (containers 3 pounds or less):					
20231 31	Nonfat dry milk.....	...do.....	563.9	137.1	574.5	84.1
20231 11	Malted milk products.....	...do.....	(D)	(D)	26.2	10.5
20231 21	Infants' dietary supplements, dry milk base.....	...do.....	(D)	(D)	18.7	13.1
20231 23	Powdered cream and cream substitutes.....	...do.....	80.7	53.1	13.2	7.1
20231 28	Other dry milk products (instant chocolate milk, weight control products, whole milk powder, etc.).....	...do.....	109.9	71.1	129.4	44.0
	Shipped in bulk (containers larger than 3 pounds):					
	Food grade (bakeries, confectioners, meatpackers, etc.):					
20231 42	Dry whole milk.....	...do.....	133.1	34.2	211.5	47.0
20231 43	Dry skim milk.....	...do.....	1,138.7	226.5	1,897.0	273.2
20231 44	Other food grade dry milk products.....	...do.....	327.8	52.0	( <sup>1</sup> )	( <sup>1</sup> )
20231 45	Feed grade (dry milk, dry buttermilk, dry whey, etc.).....	...do.....	400.9	24.2	281.3	15.9
20231 00	Dry milk products and mixtures, n.s.k.....	...do.....	<sup>2</sup> 74.4	16.4	<sup>2</sup> 60.6	9.5
20232 --	Canned milk products (consumer type cans).....	...do.....	2,338.0	417.4	2,566.7	363.0
20232 12	Evaporated milk.....	...do.....	1,618.2	255.0	2,014.4	262.7
20232 16	Condensed milk.....	...do.....	206.6	42.5	79.1	24.1
	Canned dietary supplements, weight control products:					
20232 21	Dairy base.....	...do.....	279.7	94.6	77.4	11.4
20232 23	Nondairy base.....	...do.....			384.4	63.2
20232 25	Infants' formulas, liquid.....	...do.....	233.5	25.3	<sup>2</sup> 11.3	1.6
20232 29	Other canned milk products, including canned whole milk.....	...do.....				
20232 00	Canned milk products, n.s.k.....	...do.....				
20233 --	Concentrated milk, shipped in bulk.....		(X)	80.6	(X)	75.3
	Condensed and evaporated milk products, other than ice cream mix and ice milk mix:					
20233 12	Feed grade, including concentrated whey and buttermilk.....	Million pounds	783.6	47.1	650.3	19.0
20233 16	Food grade (bakeries, confectioners, etc.).....	...do.....	324.9	28.0	579.7	50.3
20233 00	Concentrated milk shipped in bulk, n.s.k.....	...do.....	(X)	5.5	(X)	6.0
20234 12	Ice cream mix, ice milk mix, milkshake mix, sherbet mix, etc.....	Million gal...	200.2	203.0	154.9	157.8
20230 00	Condensed and evaporated milk, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	24.9	(X)	3.9
20230 02	Condensed and evaporated milk, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	3.2		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Included under code 20231 00 in 1963.

<sup>2</sup>Quantity estimated based on the quantity-value relationship for other products in the product class.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2023.--CONDENSED AND EVAPORATED MILK					
	Materials, containers and supplies, total.....		(X)	824.1	(X)	657.4
013205	Whole milk.....	Million cwt.....	96.2	408.7	100.8	341.5
202612	Fluid skim milk.....	do.....	(NA)	35.7	48.5	39.0
202613	Cream.....	do.....	0.6	18.5	0.7	21.3
202101	Butter.....	Million pounds...	13.5	9.6	(D)	(D)
202301	Condensed and evaporated milk.....	do.....	237.1	19.3	165.2	10.3
202311	Dried milk.....	do.....	247.7	51.1	260.1	41.4
202210	Natural cheese, other than cottage cheese.....	do.....	5.3	2.5	(D)	(D)
202401	Ice cream mix, sherbet mix, and ice milk mix.....	Million gals.....	1.3	1.5	(D)	(D)
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	1,289.9	12.3	1,492.3	14.5
970099	All other materials and components, containers, and supplies....		(X)	210.4	(X)	153.5
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	54.5	(X)	27.2

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2023, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20B-4

## INDUSTRY SERIES

**preliminary  
report**

### Ice cream and frozen desserts

SIC Code 2024

The Ice Cream and Frozen Desserts Industry includes establishments primarily engaged in manufacturing ice cream and other frozen desserts.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Ice Cream and Frozen Desserts Industry amounted to \$1,061.3 million, a decrease of 1 percent compared with 1963. Value added by

manufacture at \$404.1 million in 1967 was 7 percent less than value added in 1963. Average employment in the industry showed a decrease of 17 percent from 1963 to a total of 24.7 thousand employees in 1967.

Of the \$1,061.3 million total value of shipments and other receipts of establishments classified as manufacturers of ice cream and frozen desserts, \$34.7 million were products primary to other industries; and \$100.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 96 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2024. --ICE CREAM AND FROZEN DESSERTS													
1967 Census....	3851	327	24.7	156.8	13.8	27.2	77.3	404.1	659.1	1,061.3	26.8	67.0	96	73
1966 ASM <sup>1</sup> r.....	(NA)	(NA)	25.3	153.3	13.9	29.5	77.8	413.6	666.8	1,078.4	23.8	67.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	26.8	155.6	14.7	31.0	76.6	432.5	654.6	1,085.0	32.7	59.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	27.8	157.2	14.7	30.7	75.8	443.1	648.2	1,090.1	30.6	79.3	(NA)	(NA)
1963 Census....	1,081	387	29.6	162.8	15.6	32.5	76.6	433.0	644.6	1,076.5	31.9	60.7	93	74
1962 ASM <sup>1</sup> .....	(NA)	(NA)	32.6	168.3	16.1	34.6	73.2	432.3	660.6	1,092.7	26.4	59.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	33.7	167.7	16.7	35.2	72.3	427.4	658.2	1,085.8	20.2	61.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	34.9	163.8	17.5	36.4	73.6	427.7	621.6	1,048.3	24.8	61.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	34.1	157.9	18.3	38.0	74.5	408.9	599.1	1,006.5	23.8	59.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,390	458	34.8	153.9	18.7	37.7	72.4	394.7	557.3	951.5	26.1	59.4	94	71

(NA) Not available. <sup>r</sup>Revised.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

The total value of ice cream and frozen desserts shipped by all producers in 1967 was \$1,274.9 million of which \$925.7 million, or 73 percent, were shipped by plants classified in industry 2024, Ice Cream and Frozen Desserts, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 74 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2024. --ICE CREAM AND FROZEN DESSERTS												
United States, total.....	851	327	24.7	156.8	13.8	27.2	77.3	404.1	659.1	1,061.3	26.8	29.6	433.0
New England.....	73	22	2.1	13.3	1.4	2.6	7.4	50.9	65.5	116.2	2.4	2.1	62.7
Massachusetts.....	40	15	1.5	10.0	1.0	1.9	5.4	40.9	49.4	90.2	(D)	1.4	28.4
Connecticut.....	12	4	0.3	1.9	0.2	0.5	1.2	5.5	10.0	15.4	(D)	0.2	4.7
Middle Atlantic.....	167	63	6.1	43.1	3.5	7.2	22.6	102.3	152.0	253.8	7.7	7.4	126.6
New York.....	69	30	3.0	21.5	1.7	3.5	11.2	51.0	70.8	121.3	4.3	3.3	65.1
New Jersey.....	28	11	0.8	6.5	0.5	1.0	3.3	13.7	24.2	37.9	0.9	1.1	15.3
Pennsylvania.....	70	22	2.3	15.0	1.3	2.7	8.1	37.6	57.0	94.6	2.6	3.0	46.2
East North Central....	189	70	4.7	30.5	2.7	5.1	14.5	70.9	125.8	196.4	5.8	5.9	87.5
Ohio.....	51	17	1.1	6.3	0.7	1.2	3.3	15.1	27.1	42.0	1.0	1.3	16.8
Indiana.....	27	10	0.6	3.5	0.4	0.8	1.8	10.1	17.2	27.3	0.5	0.8	13.2
Illinois.....	44	22	1.7	11.9	0.9	1.7	5.5	24.2	42.9	67.0	2.4	2.1	30.9
Michigan.....	39	15	0.9	6.0	0.5	1.0	2.6	13.9	26.2	40.1	1.6	1.2	18.4
Wisconsin.....	28	6	0.5	2.8	0.2	0.5	1.2	7.7	12.4	20.0	0.4	0.5	8.1
West North Central....	80	31	2.1	13.1	1.1	2.0	5.3	29.8	57.8	87.6	1.9	2.3	27.6
Missouri.....	22	12	0.7	4.5	0.4	0.7	1.9	9.5	17.8	27.3	0.3	0.6	8.7
South Atlantic.....	80	41	3.2	16.9	1.6	3.2	7.7	53.0	82.2	135.0	2.2	(D)	(D)
Maryland.....	13	10	0.6	3.6	0.4	0.8	1.8	16.8	20.9	37.6	0.7	0.8	11.8
District of Columbia	4	3	0.3	2.0	0.1	0.3	0.8	5.4	8.5	13.8	(Z)	0.3	4.5
Virginia.....	10	5	0.5	2.1	0.1	0.3	0.7	3.9	7.7	11.7	0.3	0.8	8.8
North Carolina.....	13	6	0.3	1.5	0.2	0.3	0.6	4.5	6.4	10.8	0.2	(D)	(D)
Georgia.....	10	3	0.2	1.1	0.1	0.2	0.4	2.1	2.8	4.9	0.1	0.3	2.0
Florida.....	15	5	0.7	3.9	0.3	0.7	1.6	8.7	16.9	25.7	0.4	1.0	18.1
East South Central....	51	32	2.1	11.7	1.0	2.1	4.5	25.5	41.9	67.1	2.0	(D)	(D)
Kentucky.....	8	4	0.3	1.6	0.1	0.2	0.5	2.2	5.8	8.0	0.2	0.3	2.8
Tennessee.....	25	18	1.1	6.2	0.5	1.2	2.5	14.1	23.0	36.9	1.2	1.1	12.0
Alabama.....	12	5	0.5	2.7	0.3	0.5	1.1	6.9	10.0	16.7	0.4	(D)	(D)
Mississippi.....	5	5	0.2	1.2	0.1	0.2	0.3	2.4	3.1	5.5	0.2	0.2	2.4
West South Central....	77	24	1.6	8.9	0.8	1.7	3.3	25.1	33.4	58.2	1.5	(D)	(D)
Oklahoma.....	10	3	0.1	0.6	0.1	0.1	0.3	1.7	3.4	5.1	(Z)	0.1	1.5
Texas.....	45	13	0.9	5.1	0.5	1.0	2.0	16.2	21.8	37.9	1.2	1.2	14.9
West.....	134	44	2.8	19.3	1.8	3.4	11.9	46.7	100.5	147.2	3.2	3.2	45.3
California.....	63	27	1.8	13.0	1.2	2.3	8.5	27.2	67.4	94.9	1.5	2.0	29.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2024- --	ICE CREAM AND FROZEN DESSERTS, TOTAL.....	Million gal....	997.5	1,274.9	955.8	1,210.0
20240 13	Ice cream, including custards.....	...do.....	717.3	959.9	684.6	918.2
20240 51	Water ices.....	...do.....	34.7	41.3	36.5	43.6
20240 71	Mellorine and similar frozen desserts containing fat other than butterfat.....	...do.....	47.8	40.4	45.4	36.5
20240 93	Other frozen dairy foods (sherbet, ice milk, etc.).....	...do.....	113.6	125.7	131.7	138.7
20240 00	Ice cream and frozen desserts, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	171.0	90.8	57.5	73.0
20240 02	Ice cream and frozen desserts, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	113.1	16.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

<sup>1</sup>Quantity was estimated based on the quantity value relationship for the reported products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Items")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
INDUSTRY 2024.--ICE CREAM AND FROZEN DESSERTS						
	Materials, containers and supplies, total.....		(X)	566.7	(X)	538.9
013205	Whole milk.....	Million cartons..	5.9	28.4	12.6	48.9
202612	Fluid skim milk.....	..do.....	1.3	4.4	1.3	2.3
202613	Cream.....	..do.....	3.2	106.5	3.5	103.1
202101	Butter.....	Million pounds..	28.5	15.3	(D)	(D)
202401	Ice cream mix, sherbet mix and ice milk mix.....	Million gals....	61.9	55.8	62.0	55.1
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	4,033.8	37.3	3,879.7	39.5
202210	Natural cheese, other than cottage.....	Million pounds..	-	-	(D)	(D)
202301	Condensed and evaporated milk.....	..do.....	373.8	47.1	439.6	45.2
202311	Dried milk.....	..do.....	61.1	11.3	56.2	8.3
970099	All other materials and components, parts, containers, and supplies.....		(X)	200.3	(X)	176.0
976000	Materials, containers, and supplies, n.s.k.....		(X)	60.3	(X)	53.2

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind.  
(X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2024, these small establishments accounted for approximately 2 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

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Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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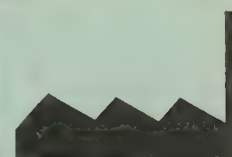
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20B-5

## INDUSTRY SERIES

### Fluid milk

SIC Code 2026

**preliminary  
report**

The Fluid Milk Industry includes establishments primarily engaged in processing (pasteurizing, homogenizing, vitaminizing, bottling) and distributing fluid milk and cream, and related products.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Fluid Milk Industry amounted to \$7,834.1 million, an increase of 11.2 percent compared with 1963. Value added by manufacture at \$2,356.8 million in 1967 was 7.0 percent more than value added in 1963. Average

employment in the industry showed a decrease of 10.2 percent from 1963 to a total of 166.1 thousand employees in 1967.

Of the \$7,834.1 million total value of shipments and other receipts of establishments classified as fluid milk processors, \$684.0 million were products primary to other industries; and \$760.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 89 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

The total value of fluid milk and related products shipped by all producers in 1967 was

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2026.--FLUID MILK														
1967 Census....	3,488	1,642	166.1	1,065.4	60.9	130.5	357.5	2,356.8	5,498.2	7,834.1	120.0	180.8	89	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	169.3	1,039.1	60.8	129.4	349.3	2,232.2	5,211.4	7,434.9	105.2	151.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	178.4	1,054.0	63.4	136.5	348.9	2,259.1	4,925.0	7,185.1	114.6	141.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	182.9	1,054.0	68.1	145.9	361.3	2,271.7	5,031.8	7,298.8	139.8	151.6	(NA)	(NA)
1963 Census....	4,619	1,948	185.0	1,032.9	68.6	147.1	358.8	2,203.2	4,821.7	7,025.9	126.1	146.8	90	95
1962 ASM <sup>1</sup> .....	(NA)	(NA)	196.3	1,033.2	71.3	143.0	361.1	2,265.6	4,571.9	6,888.8	116.7	176.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	199.4	1,027.6	75.0	153.5	361.5	2,189.8	4,597.2	6,834.5	117.6	183.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	203.9	1,034.1	80.1	160.2	365.0	2,165.4	4,580.5	6,762.6	120.9	175.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	207.4	1,108.1	83.6	177.9	365.6	2,124.7	4,536.6	6,649.3	147.9	176.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	5,828	2,239	212.2	1,009.6	86.3	182.3	369.3	1,998.5	4,444.5	6,412.3	135.7	152.8	90	95

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

\$6,669.7 million of which \$6,389.9 million, or 96 percent, were shipped by plants classified in industry 2026, Fluid Milk, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 95 percent in 1963.

extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

These ratios were developed to measure the

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2026.--FLUID MILK													
United States, total.....	3,488	1,642	166.1	1,065.4	60.9	130.5	357.5	2,356.8	5,498.2	7,834.1	120.0	185.0	2,203.2
New England.....	424	149	11.9	75.2	4.9	9.7	26.3	184.4	420.9	604.0	5.9	13.3	172.8
New Hampshire.....	40	13	0.9	5.6	0.5	0.9	2.6	14.1	28.0	42.0	(D)	(D)	(D)
Massachusetts.....	170	61	4.9	29.5	2.0	4.0	11.1	82.4	162.4	244.3	2.3	5.7	81.3
Rhode Island.....	36	15	1.0	6.6	0.4	0.8	2.0	16.3	26.6	42.6	0.5	1.2	14.6
Connecticut.....	83	29	3.1	22.2	1.1	2.0	5.6	45.0	126.1	171.0	(D)	3.2	44.6
Middle Atlantic.....	796	330	29.6	193.5	11.8	28.1	70.6	403.8	949.6	1,347.8	23.5	36.8	418.2
New York.....	366	131	11.2	75.3	5.3	11.3	34.4	163.1	481.3	641.9	9.9	14.5	165.7
New Jersey.....	88	48	3.5	23.1	1.6	6.7	9.3	54.4	126.2	179.7	2.4	5.2	66.1
Pennsylvania.....	342	151	14.9	95.1	4.9	10.1	26.9	186.3	342.1	526.2	11.2	17.1	186.4
East North Central....	679	337	36.1	234.0	13.1	26.9	82.5	545.3	1,271.7	1,812.6	25.5	39.8	483.7
Ohio.....	178	101	14.8	87.5	4.2	8.8	25.0	190.2	408.1	596.2	8.4	15.2	167.7
Indiana.....	75	46	4.2	27.7	1.7	3.4	9.4	57.8	131.4	188.8	2.0	5.1	60.5
Illinois.....	120	76	7.1	50.2	3.0	6.2	21.5	135.5	279.6	414.2	6.7	7.3	115.7
Michigan.....	144	68	5.7	39.2	2.2	4.7	14.7	94.3	240.4	334.0	5.6	6.7	83.6
Wisconsin.....	162	46	4.3	29.4	2.0	3.8	11.9	67.5	212.2	279.4	2.8	5.5	56.3
West North Central....	440	153	15.0	95.6	5.6	11.6	32.6	191.2	522.9	713.1	13.1	15.8	186.7
Minnesota.....	166	36	3.4	23.1	1.5	3.1	9.3	46.4	145.2	191.1	2.1	3.6	46.5
Iowa.....	110	34	3.0	20.0	1.0	2.2	5.7	36.4	124.2	160.6	1.6	2.9	37.5
Missouri.....	47	27	3.8	25.0	1.3	2.6	7.9	49.1	109.8	158.7	5.0	3.9	44.8
North Dakota.....	16	5	0.3	1.7	0.1	0.3	0.7	3.2	9.8	12.9	0.2	0.2	2.5
South Dakota.....	21	11	0.7	3.8	0.3	0.6	1.4	9.3	23.9	33.1	0.5	0.8	9.8
Nebraska.....	30	18	1.9	10.8	0.6	1.2	3.6	21.7	47.1	68.8	1.8	1.8	18.1
Kansas.....	50	22	1.9	11.2	0.8	1.6	4.0	25.1	63.0	88.1	1.8	2.6	27.4
South Atlantic.....	288	196	22.9	135.2	7.6	16.6	38.6	305.2	623.0	926.3	17.4	24.3	270.6
Maryland.....	34	24	3.2	21.8	1.0	1.8	5.2	41.6	90.5	131.9	1.7	3.3	41.2
District of Columbia	3	3	1.6	12.4	0.4	0.8	2.3	21.2	36.7	57.3	(D)	1.5	18.1
Virginia.....	46	37	3.4	19.5	1.2	2.6	6.0	38.5	89.2	127.8	2.0	3.3	32.2
West Virginia.....	30	18	1.2	7.1	0.4	0.9	1.9	15.1	30.3	45.3	1.5	1.7	16.7
North Carolina.....	36	33	4.2	22.2	1.4	3.3	6.5	57.8	119.7	177.4	3.8	4.5	53.4
South Carolina.....	24	12	1.3	6.9	0.5	1.1	2.4	17.4	41.3	58.4	0.8	(D)	(D)
Florida.....	58	39	4.7	27.4	1.5	3.4	8.2	79.4	134.8	213.7	4.5	4.5	56.1
East South Central....	152	103	9.2	54.9	3.0	6.5	13.9	114.5	252.9	363.9	7.1	10.2	106.4
Kentucky.....	43	32	2.3	14.5	0.8	1.7	4.0	31.7	68.5	100.1	1.4	2.5	26.3
Tennessee.....	36	26	2.2	13.6	0.8	1.7	4.1	26.7	76.6	100.4	2.0	2.9	31.9
Alabama.....	37	24	3.3	19.2	0.9	1.8	3.1	37.9	66.1	103.6	1.3	3.4	32.6
Mississippi.....	36	21	1.4	7.5	0.5	1.2	2.7	18.2	41.8	59.8	2.4	1.5	15.6
West South Central....	186	126	13.8	79.8	4.9	10.9	24.6	185.4	423.8	607.8	11.1	14.4	179.2
Arkansas.....	25	12	0.8	4.5	0.3	0.7	1.5	9.9	28.1	38.0	0.6	0.9	11.6
Louisiana.....	47	38	2.4	14.4	0.9	1.9	4.4	35.0	73.4	107.8	1.1	2.4	30.4
Oklahoma.....	28	19	2.4	13.7	0.9	1.9	4.5	33.0	64.8	97.7	4.4	2.6	29.2
Texas.....	86	67	8.1	47.2	2.8	6.5	14.2	107.1	257.4	364.3	4.9	8.6	108.0
Mountain.....	158	70	7.1	40.7	2.6	4.9	12.9	89.8	205.0	294.1	5.2	8.1	89.5
Montana.....	27	11	0.7	4.6	0.3	0.6	1.5	9.1	19.2	28.4	0.6	0.8	9.0
Idaho.....	19	8	0.6	3.4	0.3	0.5	1.2	6.0	15.7	21.7	0.3	0.6	6.3
Colorado.....	43	21	2.3	10.5	0.7	1.1	3.3	23.8	53.2	76.8	1.7	2.2	26.9
Arizona.....	17	8	1.1	7.0	0.5	0.9	2.6	14.9	42.7	57.3	1.2	1.6	14.9
Utah.....	18	4	1.0	6.3	0.3	0.6	1.7	16.7	31.4	48.3	0.5	1.5	16.6
Pacific.....	365	178	20.5	156.5	7.5	15.3	55.6	337.2	828.4	1,164.5	11.1	22.4	296.1
Washington.....	57	31	3.2	24.9	1.3	2.8	10.1	47.6	118.6	166.1	1.3	3.4	44.7
Oregon.....	42	24	1.9	13.8	0.7	1.4	5.1	32.8	64.0	96.2	1.1	2.2	26.2
California.....	253	117	14.7	113.2	5.3	10.7	38.9	247.7	623.9	871.1	8.5	16.0	216.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2026 --	FLUID MILK AND RELATED PRODUCTS, TOTAL.....		(X)	6,669.7	(X)	6,016.6
20261 --	Bulk fluid milk and cream.....	Million lbs...	15,855.6	924.9	21,816.3	950.5
20261 12	Fluid whole milk, bulk sales.....	...do.....	11,706.1	609.4	13,885.6	562.1
20261 15	Fluid skim milk, bulk sales.....	...do.....	2,651.0	46.8	6,185.8	61.5
20261 17	Fluid cream, bulk sales.....	...do.....	710.4	238.0	1,025.5	295.5
20261 18	Fluid butter milk, bulk sales.....	...do.....	<sup>e</sup> 513.4	4.8	<sup>1</sup> 719.4	31.4
20261 00	Bulk fluid milk and cream, n.s.k.....	...do.....	<sup>1</sup> 274.7	25.9		
20262 --	Packaged fluid milk and related products, total.....	Million qts...	19,338.3	4,473.0	19,565.4	4,285.1
	Packaged fluid milk and related products, including bulk cans for hotels, restaurants or institutions:					
20262 12	Fluid whole milk packaged.....	...do.....	16,368.2	3,669.3	17,136.1	3,590.1
20262 23	Partially skim milk, packaged (approximately 2 percent butterfat).....	...do.....	1,359.4	265.8	566.3	99.6
20262 25	Skim milk, packaged.....	...do.....	688.3	131.2	668.6	118.0
20262 32	Cream, heavy (whipping cream) containing 30 percent or more milk fat).....	...do.....	66.6	70.1	77.2	77.4
20262 43	Cream, light (coffee cream containing less than 30 percent milk fat).....	...do.....	53.1	34.8	74.6	48.3
20262 45	Cream, sour.....	...do.....	80.5	64.2	73.1	53.0
20262 52	Half and half.....	...do.....	284.8	138.5	290.7	139.1
20262 63	Whipped topping, packaged in same plant, with a butterfat base	...do.....	24.1	15.6	13.0	13.6
20262 00	Packaged milk and related products, n.s.k.....	...do.....	<sup>1</sup> 413.3	83.5	<sup>1</sup> 665.8	145.8
20263 --	Cottage cheese (including bakers' cheese, pot cheese, farmers' cheese).....	Million lbs...	937.8	220.3	946.2	189.1
20263 13	Manufactured and creamed in the same plant.....	...do.....	602.6	143.4	661.5	136.5
20263 16	Manufactured in the same plant, sold as curd (not creamed).....	...do.....	59.4	11.1	102.4	13.9
20263 18	Creamed in the same plant from purchased curd.....	...do.....	251.7	60.0	164.2	35.0
20263 00	Cottage cheese, n.s.k.....	...do.....	<sup>1</sup> 24.1	5.8	<sup>1</sup> 18.1	3.6
20264 --	Buttermilk, chocolate drink, and other flavored milk products....	Million qts...	1,229.2	287.6	1,191.4	252.7
20264 33	Buttermilk and related milk products (yogurt, acidophilous milk, etc.).....	...do.....	658.4	141.9	544.2	100.0
20264 35	Flavored milk drinks (chocolate milk, chocolate drinks, etc.)..	...do.....	557.3	140.4	597.2	142.2
20264 00	Buttermilk, chocolate drink, and other dairy drinks, n.s.k....	...do.....	<sup>1</sup> 13.5	5.3	<sup>1</sup> 50.0	10.6
20260 00	Fluid milk and related products n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	684.3	(X)	339.2
20260 02	Fluid milk and related products n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	79.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity was estimated based on the quantity value relationship reported for the products.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2026.--FLUID MILK					
	Materials, containers, and supplies, total.....		(X)	4,904.2	(X)	4,232.1
013205	Whole milk.....	Million cwt.....	607.3	3,421.7	631.6	2,970.5
202612	Fluid skim milk.....	..do.....	21.3	51.7	25.3	32.0
202613	Cream.....	..do.....	3.9	125.1	4.9	130.1
202101	Butter.....	Million lbs.....	79.2	38.6	(D)	(D)
202401	Ice cream mix, sherbet mix, and ice milk mix.....	Million gal.....	36.4	36.0	44.2	37.9
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	4,110.8	41.9	3,419.2	35.7
202210	Natural cheese, other than cottage.....	Million lbs.....	7.7	3.6	(D)	(D)
202301	Condensed and evaporated milk.....	..do.....	106.3	11.9	156.0	8.9
202311	Dried milk.....	..do.....	149.3	33.9	108.6	17.5
970099	All other materials and components, parts, containers, and supplies.....		(X)	604.3	(X)	543.4
976000	Materials, containers, and supplies, n.s.k.....		(X)	535.5	(X)	456.2

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 206, these small establishments accounted for approximately 1.0 percent of payrolls and 1.6 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

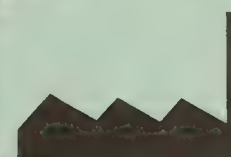
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)20C-1

## INDUSTRY SERIES

**preliminary  
report**

### Canned and cured seafoods

SIC Code 2031

The Canned and Cured Seafoods Industry includes establishments primarily engaged in cooking and canning fish, shrimps, oysters, clams, crabs, and other seafoods; and those engaged in smoking, salting, drying or otherwise curing fish for the trade. Establishments primarily engaged in shucking and packing fresh oysters in nonsealed containers, or freezing and packaging fresh fish, are classified in industry 2036.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products produced and miscellaneous receipts of establishments classi-

fied in the Canned and Cured Seafoods Industry amounted to \$520.5 million, an increase of 15 percent compared with 1963. Value added by manufacture at \$179.8 million in 1967 was 3 percent more than value added in 1963. Average employment in the industry showed a decrease of 10 percent from 1963 to a total of 15.6 thousand employees in 1967.

Of the \$520.5 million total value of production and other receipts of establishments classified as producers of canned and cured seafoods, \$32.0 million were products primary to other industries; and \$87.8 million were receipts for miscellaneous activities. The industry production of primary products represented 93 percent of

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture <sup>4</sup>	Cost of materials	Value of production	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2031.--CANNED AND CURED SEAFOODS														
1967 Census....	<sup>3</sup> 319	160	15.6	68.4	13.9	23.3	54.1	179.8	340.6	520.5	9.4	128.9	93	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	16.7	70.6	14.8	24.9	55.7	204.0	344.6	548.1	6.6	120.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	16.1	66.5	14.4	24.6	53.2	190.8	300.7	492.4	6.3	95.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	15.7	60.8	14.0	23.3	46.8	166.0	278.7	444.5	6.0	96.9	(NA)	(NA)
1963 Census....	405	196	17.3	66.2	15.5	25.5	52.6	174.6	277.8	452.5	6.3	88.7	92	95
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*16.5	*61.9	*14.8	*25.1	*48.4	*157.4	*274.9	*428.9	*9.0	*97.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*16.5	*59.1	*15.0	*24.7	*46.9	*147.6	*257.8	*401.7	*7.8	*101.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*17.2	*61.5	*15.4	*26.0	*50.1	*142.8	*261.0	*400.9	*6.8	*94.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*15.4	*51.9	*13.9	*23.3	*41.4	*119.3	*236.4	*352.5	*7.7	*90.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	411	210	17.1	58.1	15.4	25.1	47.5	130.6	258.1	388.6	3.5	88.1	95	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

<sup>4</sup>Only work-in-process inventories are used in the calculation for the value of production industries.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

The total value of canned and cured seafoods produced by all producers in 1967 was \$421.2 million of which \$400.7 million, or 95 percent, were produced by plants classified in industry 2031, Canned and Cured Seafoods, while the remainder was produced by plants classified

in other industries. This percent, called the coverage ratio, was 95 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture <sup>1</sup>	Cost of materials	Value of production	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2031.--CANNED AND CURED SEAFOODS												
United States, total.....	319	160	15.6	68.4	13.9	23.3	54.1	179.8	340.6	520.5	9.4	17.3	174.6
East North Central....	16	4	0.3	1.5	0.3	0.5	1.0	2.8	7.1	9.9	(D)	(D)	(D)
Illinois.....	4	3	0.2	1.0	0.2	0.4	0.7	2.1	5.9	7.9	(D)	0.3	2.2
South:													
Maryland.....	13	9	0.8	2.2	0.7	1.2	1.7	2.6	10.8	13.4	(D)	(D)	(D)
Florida.....	8	4	0.3	0.8	0.3	0.3	0.6	1.3	1.6	2.9	(Z)	0.2	1.0
Louisiana.....	23	11	0.9	2.7	0.8	1.3	2.0	9.9	11.1	20.9	(D)	1.3	6.5
Pacific.....	144	65	8.8	43.5	7.7	13.0	35.1	120.1	245.4	365.7	6.6	9.3	120.0
Oregon.....	10	5	0.9	3.4	0.8	1.4	2.7	8.1	26.1	34.2	(D)	0.7	12.6
California.....	19	11	4.5	22.4	4.0	6.6	17.7	64.7	150.7	215.4	1.3	5.2	64.9
Alaska.....	66	34	2.2	12.8	1.9	3.5	10.7	35.0	43.8	79.0	2.9	2.1	31.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

<sup>1</sup>Only work-in-process inventories are used in the calculation of value added.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of production.")

Product code	Product	Unit of measure	Total production (pack)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2031- --	CANNED AND CURED SEAFOODS, TOTAL.....	Million lbs..	( <sup>1</sup> )	421.1	756.4	384.4
	Canned seafood:					
	As reported in the census of manufactures.....	...do.....	( <sup>1</sup> )	386.7	657.7	331.3
20310 11	Canned fish and other seafood, except soups, stews, and chowders, total.....	...do.....	( <sup>1</sup> )	307.6	523.5	288.2
20310 31	Canned seafood soups, stews, and chowders (turtle soup, oyster stew, clam chowder, etc.).....	...do.....	( <sup>1</sup> )	22.4	90.4	21.0
20310 00	Canned seafood, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	( <sup>1</sup> )	49.1	43.8	22.1
20310 02	Canned seafood, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	( <sup>1</sup> )	7.6		
	As reported in "Canned Fishery Products, 1967" collected by the Fish and Wildlife Service, Department of the Interior <sup>2</sup> .....	...do.....	698.7	445.7	725.5	380.6
	Finfish, total.....	...do.....	568.3	368.8	617.7	322.5
	Salmon.....	...do.....	99.5	76.1	157.9	87.6
	Sardines (Maine and Pacific).....	...do.....	29.3	13.9	40.9	14.2
	Tuna (solid, chunks, flakes and grated) and tuna specialties.....	...do.....	392.4	263.0	329.0	202.2
	Mackerel.....	...do.....	12.7	2.4	57.4	7.6
	Gefilte fish.....	...do.....	14.6	4.8	15.0	4.8
	Fish roe and caviar.....	...do.....	2.6	3.5	2.6	2.1
	Fishcakes (principally ground fish).....	...do.....	17.3	5.3	2.4	0.6
	Other finfish.....	...do.....			12.6	3.3
	Shellfish, total.....	...do.....	130.5	76.9	107.8	58.0
	Crabmeat and crabmeat specialties.....	...do.....	11.0	16.6	7.9	10.5
	Shrimp and shrimp specialties (drained weight).....	...do.....	17.8	24.7	16.3	19.7
	Oyster and oyster specialties (drained weight).....	...do.....	16.3	10.1	14.5	8.1
	Clams (whole, minced, chowder, juice) (drained weight).....	...do.....	65.7	21.7	57.6	17.4
	Other shellfish.....	...do.....	19.6	3.7	11.4	2.4
	Cured fish and other seafood.....	...do.....	42.8	34.4	98.7	53.2
20310 51	Smoked salmon.....	...do.....	7.1	10.9	8.6	10.6
20310 71	Other smoked fish (herring, whitefish, chub, cisco, etc.).....	...do.....	8.8	7.4	20.9	14.8
	Salted and pickled fish (including sun-dried):					
20310 81	Sold for further processing.....	...do.....	11.4	7.6	39.8	14.2
20310 85	Sold as finished products ready for consumption.....	...do.....	15.5	8.5	29.5	13.6

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity figures withheld because of errors in reporting. It is expected that data will be available for the final report.

<sup>2</sup>Since the Fish and Wildlife Service collected detailed information on commercial fisheries and fish processors, only limited product information was collected in the census of manufactures.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2031, --CANNED AND CURED SEAFOODS					
	Materials, ingredients, containers, and supplies consumed, total.....		(X)	260.6	(X)	228.8
091211	Finfish, round.....	1,000 short tons.	402.8	137.6	476.8	126.9
091311	Shellfish.....	..do.....	122.7	36.2	76.6	23.1
209006	Fats and oils, all types (purchased as such).....	million pounds...	25.7	3.4	36.7	4.9
260091	Paper and paperboard containers.....		(X)	3.4	(X)	4.3
340001	Metal containers.....		(X)	29.2	(X)	34.0
970099	All other materials, ingredients, containers, and supplies consumed.....		(X)	27.6	(X)	21.2
976000	Materials, n.s.k. <sup>1</sup> .....		(X)	23.2	(X)	14.3

(X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2031, these small establishments accounted for approximately 2 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

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**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**Includes the f.o.b. plant value of the primary products produced in the plant as well as the shipments value of secondary products and miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further production. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**Derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of production plus miscellaneous receipts. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is the difference between the sales value and cost of merchandise sold without further manufacture or processing) plus the net change in work-in-process inventories between the beginning and the end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

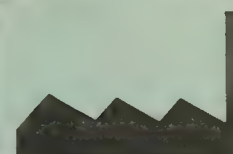
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-20C-2

## INDUSTRY SERIES

**preliminary  
report**

### Canned specialties

SIC Code 2032

The Canned Specialties Industry includes establishments primarily engaged in canning specialty products, such as baby foods, "native foods," health foods, and soups except seafood. Establishments primarily engaged in canning seafood soup are classified in industry 2031, and those primarily engaged in quick freezing canned specialties in industry 2037.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of production and miscellaneous receipts of establishments classified in the Canned Specialties Industry amounted

to \$1,364.2 million, an increase of 17 percent compared with 1963. Value added by manufacture at \$601.6 million in 1967 was 11 percent more than value added in 1963. Average employment in the industry showed an increase of 8 percent from 1963 to a total of 27.3 thousand employees in 1967.

Of the \$1,364.2 million total value of production and other receipts of establishments classified as manufacturers of canned specialties, \$230.1 million were products primary to other industries; and \$50.1 million were receipts for miscellaneous activities. The industry production of primary products represented 82 percent of the total manufactured production, primary and secondary. This percent, called the specialization ratio for the industry, was 80 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture <sup>3</sup>	Cost of materials	Value of production <sup>3</sup>	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2032.--CANNED SPECIALTIES														
1967 Census....	176	84	27.3	157.6	22.4	45.1	115.3	601.6	761.8	1,364.2	28.1	248.7	82	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	28.9	156.8	23.7	47.2	114.9	645.3	811.2	1,456.9	40.8	240.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	27.4	146.5	22.4	45.4	107.3	613.2	755.8	1,368.1	30.7	226.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	25.7	135.0	20.8	41.6	97.5	564.9	664.0	1,230.6	24.0	203.7	(NA)	(NA)
1963 Census....	173	77	25.2	127.2	20.4	40.7	92.3	540.8	627.5	1,169.3	25.6	223.4	80	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	25.3	126.8	20.3	40.4	90.6	473.0	612.2	1,085.8	23.8	213.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	25.1	123.4	20.2	40.7	87.8	469.8	588.9	1,057.9	20.1	203.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	25.1	116.1	20.3	40.2	83.3	428.7	560.9	989.2	14.2	195.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	24.4	108.5	19.7	39.4	79.7	346.6	514.0	861.4	17.3	182.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	107	69	24.2	109.5	19.5	41.6	81.4	340.8	507.0	846.9	16.5	176.4	86	83

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Only work-in-process inventories are used in the calculation for the value of production industries.

Issued January 1970

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of canned specialties produced by all producers in 1967 was \$1,192.6 million of which \$1,084.0 million, or 91 percent, were produced by plants classified in industry 2032, Canned Specialties, while the remainder was produced by plants classified in other industries. This percent, called the coverage ratio, was 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of production	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2032.--CANNED SPECIALTIES												
United States, total.....	176	84	27.3	157.6	22.4	45.1	115.3	601.6	761.8	1,364.2	28.1	25.2	540.8
Northeast.....	50	24	10.5	62.5	8.9	17.7	49.0	256.0	282.5	539.8	7.3	10.3	208.5
New York.....	23	11	2.0	10.9	1.7	3.5	8.4	55.8	53.8	111.3	1.1	(D)	(D)
East North Central....	30	18	7.4	43.8	6.0	12.4	31.5	159.6	228.2	387.8	6.6	7.9	206.8
West North Central....	8	5	0.9	5.5	0.8	1.6	2.8	14.9	19.4	34.3	1.1	1.5	21.2
South.....	39	23	4.4	20.0	3.6	7.2	13.7	84.6	119.3	203.7	7.4	2.1	25.8
West.....	49	14	4.0	25.9	3.2	6.3	18.4	86.4	112.4	198.7	5.8	3.4	78.5
California.....	31	12	3.7	24.3	2.9	5.7	17.3	82.4	105.8	188.0	(D)	3.3	78.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Production by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production (pack)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2032--	CANNED SPECIALTIES, TOTAL.....		(X)	1,192.6	(X)	946.6
20321 --	Canned baby foods (except meat), total <sup>1</sup> .....		(X)	243.2	(X)	230.8
20321 11	Fruits.....	Million pounds net weight...				
20321 31	Vegetables.....	..do.....	157.1	47.9	<sup>r</sup> 268.5	74.8
20321 51	Desserts (including dessert-fruit combinations).....	..do.....	133.3	32.2	<sup>r</sup> 103.1	29.4
			169.6	50.4	<sup>r</sup> 88.4	24.8
20321 61	Juices: 4.1 oz. to 7 oz.....	Million cases of 24.....				
20321 65	Other sizes.....	..do.....	9.4	19.7	11.2	17.0
20321 98	Other canned baby foods, except meat, cereal, and biscuits, including vegetable and vegetable meat soups, etc.....	Million pounds net weight...	284.0	93.0	<sup>r</sup> 322.7	84.6
20323 --	Canned dry beans, total.....	Million cases.	70.2	246.0	63.9	200.3
20323 71	Beans with pork, including baked: 7.1 oz. to 10 oz. (8 oz. short, 8 oz. tall, etc.).....	Million cases of 48.....	3.0	11.9	2.2	7.7
20323 72	10.1 oz. to 13 oz. (No. 1 picnic, etc.).....	..do.....	1.2	6.1	0.9	4.5
20323 73	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	Million cases of 24.....	17.0	48.4	18.6	51.6
20323 74	18.1 oz. to 22 oz. (No. 2, etc.).....	..do.....	6.7	28.0	4.8	16.3
20323 75	22.1 oz. to 27 oz. (Jumbo, etc.).....	..do.....	7.1	31.3	0.8	4.5
20323 76	27.1 oz. to 40 oz. (No. 2-1/2, quart glass, etc.).....	..do.....	4.3	16.7	7.1	30.0
20323 79	Other sizes.....	Million cases.			3.9	13.6
20323 82	Beans with sauce, vegetarian style, including baked: 13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	Million cases of 24.....	7.5	20.4	2.9	8.1
20323 84	Other sizes.....	Million cases.	1.1	4.5	2.3	7.5
20323 86	Beans, all other dry varieties, including chili con carne: 13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	Million cases of 24.....	13.5	41.3	13.8	34.9
20323 91	Other sizes.....	Million cases.	6.7	30.0	5.4	18.5
20323 00	Canned dry beans, n.s.k.....	..do.....	2.1	7.4	1.0	3.1
20322 --	Soups and other canned specialties and canned nationality foods n.s.k., total.....		(X)	703.4	(X)	515.5
20324 --						
20320 --						
20324 25	Spaghetti with meat: 13.1 oz. to 17 oz. (No. 300, etc.).....	Million cases of 24.....			3.1	15.2
20324 29	Other sizes.....	Million cases.			1.2	5.9
20324 32	Spaghetti without meat: 13 oz. and under (No. 1 picnic, etc.).....	Million cases of 48.....			(Z)	1.4
20324 33	13.1 oz. to 17 oz. (No. 300, etc.).....	Million cases of 24.....			5.5	14.4
20324 34	Other sizes.....	Million cases.	(NA)	703.4	2.7	10.5
20324 68	Chinese foods (bean sprouts, chop suey, etc.).....	..do.....			6.0	23.5
20324 91	Mincemeat.....	Million pounds			16.0	4.6
20324 93	Spanish foods (Mexican rice, tortillas, enchiladas).....	Million cases.				
20324 94	Ravioli.....	..do.....				
20324 95	Macaroni and spaghetti dinners made from purchased noodle products.....	..do.....			(X)	440.1
20324 98	Other canned specialties (other than canned meats).....	..do.....				

(NA) Not available. n.s.k. Not specified by kind. <sup>r</sup>Revised. (X) Not applicable. (Z) Less than 0.1 when rounded.

<sup>1</sup>Comparison of the report submitted in both the 1967 and 1963 for individual companies indicated that a number of establishments were reporting on a gross weight rather than net weight basis in 1963. The corrected figures shown for 1963 have been adjusted to reflect this change; revised data for previous census years are not available.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(see appendix, Explanation of Terms)						
Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2032.--CANNED SPECIALTIES					
	Materials, ingredients, containers, and supplies consumed, total.....	.....	(X)	712.9	(X)	566.8
012290	Fresh fruit.....	1,000 short tons.	129.1	9.8	122.7	8.1
	Fresh vegetables:					
012311	Green peas.....	...do.....	7.0	0.8	5.0	0.8
011951	Irish potatoes.....	...do.....	60.8	2.9	49.6	2.1
012341	Tomatoes.....	...do.....	536.9	22.3	636.2	20.5
012331	Sweet corn.....	...do.....	67.9	1.9	( <sup>1</sup> )	( <sup>1</sup> )
012321	Snap or wax beans.....	...do.....	20.1	1.8	13.8	1.5
012391	Other fresh vegetables.....	...do.....	(X)	26.8	(X)	20.2
	Other materials, ingredients, containers, and supplies:					
203413	Dried beans.....	...do.....	187.2	32.1	191.8	32.4
206011	Sugar (cane and beet).....	1,000 cwt.....	1,286.3	12.5	1,710.1	16.8
209006	Fats and oils, all types.....	Million pounds...	53.6	8.3	54.6	7.5
203411	Dried fruit.....	1,000 short tons.	2.8	1.2	2.0	0.8
201013	Fresh and prepared meats, other than poultry.....	Million pounds...	178.3	69.6	141.3	50.3
204110	Wheat flour.....	1,000 cwt.....	2,079.6	15.2	1,479.4	10.4
201501	Dressed poultry.....	Million pounds...	34.5	10.8	166.3	64.5
203348	Concentrated fruit juices.....	1,000 gallons....	33.6	0.8	(X)	(X)
	Containers:					
265011	Paperboard containers.....	.....	(X)	23.1	(X)	17.8
341101	Metal cans.....	.....	(X)	154.1	(X)	135.7
322102	Glass containers.....	.....	(X)	89.2	(X)	62.0
970099	All other materials, ingredients, containers, and supplies, consumed.....	.....	(X)	203.3	(X)	} 115.3
976000	Material, n.s.k <sup>2</sup> .....	.....	(X)	26.3	(X)	

n.s.k. Not specified by kind. (X) Not applicable. <sup>1</sup>Included with material code 970099.<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2032, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

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**Value of Shipments--**Includes the f.o.b. plant value of the primary products produced in the plant as well as the shipments value of secondary products and miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further production. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**Derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of production plus miscellaneous receipts. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is the difference between the sales value and cost of merchandise sold without further manufacture or processing) plus the net change in work-in-process inventories between the beginning and the end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

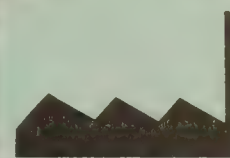
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-20C-3

## INDUSTRY SERIES

**preliminary  
report**

### Canned fruits and vegetables

SIC Code 2033

The Canned Fruits, Vegetables, Preserves, Jams, and Jellies Industry includes establishments primarily engaged in canning fruits and vegetables, and fruit and vegetable juices; and in manufacturing catsup and similar tomato sauces, preserves, jams, and jellies. Establishments primarily engaged in canning seafood soups are classified in industry 2031; and soups, except seafood, and baby foods in industry 2032.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of production and miscellaneous receipts of establishments classified in the Canned Fruits and Vegetables Industry amounted to \$3,499.4 million, an increase of 27.6 percent compared with 1963. Value added by manufacture at \$1,421.0 million in 1967 was 38.0 percent more than value added in 1963. Average employment in the industry showed a decrease of 1.4 percent from 1963 to a total of 101.0 thousand employees in 1967.

Of the \$3,499.4 million total value of production and other receipts of establishments classified as manufacturers of canned fruits and

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of production (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2033--CANNED FRUITS AND VEGETABLES													
1967 Census....	1,228	737	101.0	480.2	89.7	175.5	379.3	1,421.0	2,087.1	3,499.4	102.2	1,088.3	90	93
1966 ASM <sup>1</sup> .....	(NA)	(NA)	101.0	433.9	88.4	167.6	341.1	1,285.6	1,932.9	3,215.8	84.8	957.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	100.6	407.1	88.1	166.1	317.8	1,179.2	1,811.7	2,982.0	74.5	922.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	102.3	404.5	89.8	168.9	320.3	1,113.2	1,847.6	2,966.3	78.3	1,002.9	(NA)	(NA)
1963 Census....	1,430	836	102.4	382.1	90.7	168.2	303.5	1,029.5	1,707.3	2,742.8	66.6	954.0	89	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	104.1	385.9	93.4	184.0	304.8	971.0	1,676.8	2,626.5	72.8	974.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	106.6	373.7	95.7	183.2	290.5	1,000.1	1,630.8	2,626.1	54.7	903.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	103.7	359.7	92.8	181.2	282.6	988.2	1,548.8	2,515.9	46.3	838.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	107.0	354.9	95.6	183.6	282.1	888.6	1,456.7	2,335.5	43.5	772.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,630	923	108.4	340.3	95.8	180.4	269.9	849.9	1,485.6	2,333.9	43.7	806.9	89	91

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

vegetables, \$338.6 million were products primary to other industries; and \$138.4 million were receipts for miscellaneous activities. The industry production of primary products represented 90 percent of the total manufactured production, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

The total value of canned fruits and vegetables produced by all producers in 1967 was \$3,253.5 million of which \$3,022.4 million, or 93 percent,

were produced by plants classified in industry 2033, Canned Fruits and Vegetables, while the remainder was produced by plants classified in other industries. This percent, called the coverage ratio, was 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND NATIONAL CANNERS ASSOCIATION

In comparing census statistics with those published by the National Canners Association (NCA), some differences were noted. The principal reasons for differences are (1) the Census reports cover the calendar year, or a fiscal year approximating the calendar year, while the National Canners Association figures cover the crop year; (2) for products packed in glass the NCA reports most glass containers in cases of 24, the census reports in cases of 12; and (3). The Census reports for small companies (see Note: - table 3) were estimated for administrative records.



## 1967 CENSUS OF MANUFACTURES

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TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of production	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2033--CANNED FRUITS AND VEGETABLES												
United States, total.....	1,228	737	101.0	480.2	89.7	175.5	379.3	1,421.0	2,087.1	3,499.4	102.2	102.4	1,029.5
New England.....	48	16	1.2	5.3	0.9	1.6	3.2	15.6	25.3	40.9	0.3	1.8	17.3
Maine.....	19	7	0.4	1.2	0.4	0.6	1.0	3.4	3.9	7.4	(Z)	0.7	4.2
Massachusetts.....	18	7	0.6	3.3	0.3	0.7	1.7	11.1	18.2	29.3	0.2	0.9	11.4
Middle Atlantic.....	202	126	14.1	67.1	12.3	25.7	51.0	215.2	334.0	547.2	15.5	13.7	143.1
New York.....	108	65	7.0	34.3	6.3	13.9	27.3	101.5	176.3	277.1	9.2	7.0	66.4
New Jersey.....	35	21	2.4	12.3	2.0	4.2	8.9	34.5	63.1	97.0	1.6	2.5	27.6
Pennsylvania.....	59	40	4.6	20.6	4.0	7.7	14.7	79.3	94.6	173.1	4.7	4.2	49.1
East North Central....	301	195	18.1	85.8	16.1	34.2	67.7	281.8	395.0	675.6	22.3	19.1	179.0
Ohio.....	57	27	2.9	15.7	2.4	5.5	12.1	64.7	93.3	157.1	4.0	2.3	29.8
Indiana.....	49	29	2.3	10.2	2.1	4.2	8.0	26.3	42.7	69.0	1.9	3.4	22.4
Illinois.....	49	28	3.2	16.1	2.9	6.2	12.7	62.6	81.2	143.8	3.3	3.0	40.8
Michigan.....	55	34	2.8	12.2	2.4	4.7	8.8	34.9	61.8	96.9	3.9	3.2	23.4
Wisconsin.....	91	77	6.9	31.6	6.3	13.6	26.1	95.2	116.0	208.8	9.2	7.1	62.5
West North Central....	42	29	3.8	17.1	3.4	7.3	13.6	76.4	80.1	156.5	9.1	3.5	39.4
South Atlantic.....	238	123	17.0	62.7	15.2	27.9	49.1	169.4	255.3	424.4	12.0	16.1	125.7
Delaware.....	15	15	2.2	7.2	2.1	3.6	5.8	21.5	25.5	47.0	2.5	(D)	(D)
Maryland.....	65	34	2.7	7.6	2.5	3.8	6.0	17.9	25.6	53.5	1.3	4.0	17.2
Virginia.....	39	14	1.7	6.6	1.5	3.0	5.4	17.3	24.5	41.8	0.7	2.1	13.4
South Carolina.....	7	1	0.1	0.1	0.1	0.1	0.1	0.6	0.5	1.2	(D)	0.4	1.6
Florida.....	70	39	7.7	32.0	6.8	13.4	24.9	88.8	144.8	233.1	6.5	6.2	70.4
East South Central....	16	9	1.2	4.1	1.0	1.8	2.9	11.1	20.1	31.0	0.6	1.6	12.7
Tennessee.....	8	3	0.2	0.7	0.2	0.4	0.6	1.6	1.9	3.5	0.1	0.9	5.6
West South Central....	82	49	5.4	17.8	4.8	8.7	13.8	43.6	78.5	122.1	2.1	5.4	41.1
Arkansas.....	15	12	1.2	4.0	1.1	1.9	3.2	7.6	24.8	32.4	0.5	1.1	6.8
Louisiana.....	19	12	1.7	5.0	1.5	2.8	4.0	11.5	16.0	27.5	0.4	1.6	13.4
Oklahoma.....	12	7	0.6	1.9	0.5	0.8	1.3	4.2	8.5	12.7	0.3	0.6	2.7
Texas.....	36	18	1.9	6.9	1.7	3.1	5.3	20.3	29.2	49.5	0.9	2.1	18.3
Mountain.....	36	16	1.5	6.1	1.3	2.4	4.6	21.2	25.9	47.5	1.7	2.0	17.0
Pacific.....	263	174	38.7	213.9	34.8	65.9	173.4	586.6	872.9	1,454.3	38.7	39.3	454.1
Washington.....	35	24	3.3	18.3	3.0	6.3	15.1	54.2	70.9	125.0	4.0	3.1	37.0
California.....	171	117	24.5	149.7	21.8	41.6	121.1	410.7	671.3	1,076.9	29.5	25.1	321.6
Hawaii.....	18	8	6.7	26.8	6.1	11.1	20.8	67.2	70.0	137.1	3.4	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Production by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production (pack)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2033- —	CANNED FRUITS AND VEGETABLES, TOTAL.....	.....	(X)	3,253.5	(X)	2,583.8
20331 --	Canned fruits (except baby foods), total.....	1,000 cases.....	162,128	823.2	156,152	721.7
20331 12	Apples, excluding pie mix.....	..do.....	5,269	28.5	4,034	19.1
	Applesauce <sup>1</sup> .....	..do.....	26,538	95.9	20,949	66.3
20331 13	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	10,652	35.9	12,011	36.8
20331 14	Other sizes.....	1,000 cases.....	15,886	60.0	8,938	29.6
	8Z.....	..do.....	1,061	(NA)	661	(NA)
	No. 2-1/2.....	..do.....	(S)	(NA)	482	(NA)
	No. 10.....	..do.....	3,642	(NA)	2,217	(NA)
	Other sizes.....	..do.....	11,183	(NA)	5,577	(NA)
20331 15	Apricots.....	..do.....	5,229	25.1	5,725	29.1
20331 18	Berries, except cranberries.....	..do.....	892	5.7	936	6.2
20331 22	Cherries, red pitted, excluding pie mix <sup>1</sup> .....	..do.....	1,118	11.0	1,771	10.0
	No. 2.....	..do.....	-	(NA)	-	(NA)
	No. 300.....	..do.....	616	(NA)	1,015	(NA)
	No. 10.....	..do.....	502	(NA)	730	(NA)
	Other sizes.....	..do.....	-	(NA)	26	(NA)
20331 24	Sweet cherries.....	..do.....	1,614	12.5	1,006	5.4
	Cranberries and cranberry sauce:					
20331 25	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	..do.....	(D)	(D)	6,202	27.4
20331 26	Other sizes.....	..do.....	(D)	(D)		
20331 27	Figs.....	..do.....	588	2.7	509	2.5
20331 31	Grapefruit segments <sup>1</sup> .....	..do.....	4,898	22.0	4,392	17.8
	No. 2.....	..do.....	-	-	-	(NA)
	No. 8Z short and tall.....	..do.....	243	(NA)	184	(NA)
	No. 303.....	..do.....	3,735	(NA)	3,733	(NA)
	No. 3 cylinder.....	..do.....	920	(NA)	475	(NA)
	Other sizes.....	..do.....	-	(NA)	-	(NA)
	Fruit cocktail <sup>1</sup> .....	..do.....	20,779	109.9	19,022	92.0
20331 32	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	11,784	58.2	10,604	44.8
20331 33	Other sizes.....	1,000 cases.....	8,995	51.7	8,418	47.2
	No. 2-1/2.....	..do.....	4,483	(NA)	4,756	(NA)
	No. 8Z short and tall.....	..do.....	2,099	(NA)	1,599	(NA)
	No. 2.....	..do.....	170	(NA)	219	(NA)
	No. 10.....	..do.....	2,209	(NA)	1,776	(NA)
	Other sizes.....	..do.....	34	(NA)	88	(NA)
20331 34	Fruits for salads, including mixed fruits other than fruit cocktail.....	..do.....	3,461	18.2	4,671	23.1
	Olives, ripe and green ripe, including stuffed:					
20331 41	5 oz. or less (4 oz., etc.).....	1,000 cases of 48	(NA)	5.2	1,041	8.8
20331 43	5.1 oz. to 15 oz. (No. 303, pint glass, No. 1 tall, etc.).....	..do.....	2,144	23.3	2,353	24.7
20331 45	Other sizes.....	1,000 cases.....	731	7.2	1,408	10.3
	Peaches, including spiced, excluding pie mix <sup>1</sup> .....	..do.....	32,936	171.8	36,429	162.8
20331 47	27.1 oz. to 40 oz. (No. 2-1/2, quart glass, etc.).....	1,000 cases of 24	19,247	104.8	24,176	115.7
20331 49	Other sizes.....	1,000 cases.....	13,689	67.0	12,253	47.1
	8Z short and tall.....	..do.....	1,710	(NA)	1,360	(NA)
	No. 303, 300 and No. 1 tall.....	..do.....	6,385	(NA)	6,262	(NA)
	No. 10.....	..do.....	5,403	(NA)	4,472	(NA)
	Other sizes.....	..do.....	191	(NA)	159	(NA)
	Pears, including spiced:					
20331 52	27.1 oz. to 40 oz. (No. 2-1/2 quart glass, etc.).....	1,000 cases of 24	4,419	29.6	4,069	26.1
20331 53	Other sizes.....	1,000 cases.....	4,319	25.8	3,674	19.9
20331 54	Plums (purple and other types, excluding canned dried prunes).....	..do.....	2,039	8.3	1,268	5.2
20331 57	Pineapple (all styles).....	..do.....	18,417	99.4	19,224	94.7
	Canned fruit pie mixes:					
20331 61	Apple.....	1,000 cases.....	1,326	5.8	1,612	5.9
20331 63	Cherry.....	..do.....	2,604	16.0	3,211	12.8
20331 65	Peaches.....	..do.....	746	3.9	1,945	8.6
20331 69	Other fruit pie mixes.....	..do.....	3,039	15.1	2,770	13.6
20331 98	Other canned fruit.....	..do.....	2,989	12.1	5,866	20.2
20331 00	Canned fruits, n.s.k.....	..do.....	<sup>2</sup> 3,940	19.9	<sup>2</sup> 1,965	9.1

See footnotes at end of table.



TABLE 3. Quantity and Value of Production by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production (pack)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2033- --	CANNED FRUITS AND VEGETABLES--Continued					
20332 --	Canned vegetables (except hominy and mushrooms) total.....	1,000 cases.....	244,103	966.2	233,203	767.6
	Asparagus <sup>1</sup> .....	...do.....	7,518	58.3	8,988	55.8
20332 01	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	4,994	38.1	5,749	33.6
20332 02	Other sizes.....	1,000 cases.....	2,524	20.2	3,239	22.2
	No. 2.....	...do.....	170	(NA)	542	(NA)
	8Z tall.....	...do.....	372	(NA)	340	(NA)
	No. 1 picnic and 211 cylinder.....	...do.....	656	(NA)	1,005	(NA)
	300 x 509.....	...do.....	74	(NA)	256	(NA)
	No. 5 squat.....	...do.....	314	(NA)	185	(NA)
	No. 10.....	...do.....	450	(NA)	427	(NA)
	Other sizes.....	...do.....	488	(NA)	484	(NA)
20332 03	Beans, fresh lima.....	...do.....	4,338	20.7	3,153	10.8
20332 04	Beans, green and wax (except Blue Lake):					
	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	22,305	74.3	15,567	47.0
20332 05	Other sizes.....	1,000 cases.....	4,664	17.5	4,932	16.8
20332 08	Beans, Blue Lake:					
	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	11,583	46.1	10,591	42.0
20332 09	Other sizes.....	1,000 cases.....	5,382	25.3	3,723	15.0
20332 11	Beets:					
	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	8,191	22.7	9,808	22.8
20332 12	Other sizes.....	1,000 cases.....	2,917	8.9	3,535	8.9
20332 15	Carrots.....	...do.....	6,540	21.2	4,394	11.4
20332 21	Sweet corn, whole kernel:					
	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	15,777	62.7	<sup>4</sup> 22,433	65.8
20332 22	Other sizes.....	1,000 cases.....	14,344	66.6	4,899	14.9
20332 25	Sweet corn, cream style:					
	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	15,588	61.2	<sup>4</sup> 15,576	39.8
20332 26	Other sizes.....	1,000 cases.....	3,403	14.5	2,239	6.2
20332 35	Vegetable combinations (mixed vegetables, succotash, carrots and peas, vegetable salad, etc. and other combinations).....	...do.....	7,280	24.9	7,240	22.4
20332 36	Green peas <sup>1</sup> .....	...do.....	34,870	137.2	34,565	117.5
	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	27,569	108.0	26,833	90.3
20332 37	Other sizes.....	1,000 cases.....	7,301	29.2	7,732	27.2
	8Z.....	...do.....	3,226	(NA)	3,580	(NA)
	No. 1 picnic.....	...do.....	-	-	-	(NA)
	No. 10.....	...do.....	3,748	(NA)	4,036	(NA)
	Other sizes.....	...do.....	327	(NA)	166	(NA)
20332 39	Other peas (blackeye, crowder, purple hull, field, etc.).....	...do.....	2,610	7.8	2,123	6.1
20332 52	Pumpkin and squash pie mix.....	...do.....	995	3.1	554	1.8
20332 54	Pumpkin and squash, except pie mix.....	...do.....	2,627	8.2	2,433	6.7
20332 55	Spinach <sup>1</sup> .....	...do.....	6,993	20.2	6,558	18.2
	8Z.....	...do.....	505	(NA)	413	(NA)
	No. 1 picnic.....	...do.....	68	(NA)	151	(NA)
	No. 303 and 300.....	...do.....	3,989	(NA)	3,987	(NA)
	No. 2-1/2.....	...do.....	954	(NA)	1,076	(NA)
	No. 10.....	...do.....	1,477	(NA)	-	(NA)
	Other sizes.....	...do.....	-	-	-	(NA)
20332 58	Other leafy greens (turnip, kale, mustard, etc.) <sup>1</sup> .....	...do.....	3,021	8.5	2,760	5.8
	No. 303 and 300.....	...do.....	1,934	(NA)	1,921	(NA)
	No. 2-1/2.....	...do.....	261	(NA)	212	(NA)
	No. 10.....	...do.....	826	(NA)	627	(NA)
20332 71	Tomatoes <sup>1</sup> .....	...do.....	29,552	125.8	24,566	86.9
	13.1 oz. to 18 oz. (No. 300, No. 303, etc.).....	1,000 cases of 24	16,095	60.9	12,649	39.9
20332 72	Other sizes.....	1,000 cases.....	13,457	64.9	11,917	47.0
	No. 2.....	...do.....	123	(NA)	227	(NA)
	8Z.....	...do.....	423	(NA)	310	(NA)
	No. 1 picnic.....	...do.....	515	(NA)	501	(NA)
	No. 2-1/2.....	...do.....	4,893	(NA)	4,706	(NA)
	No. 10.....	...do.....	7,406	(NA)	5,958	(NA)
	Other sizes.....	...do.....	97	(NA)	215	(NA)
20332 73	Pimentos.....	...do.....	1,872	9.0	1,352	5.9
20332 74	Sweet potatoes.....	...do.....	8,208	36.6	8,020	35.6
20332 75	White potatoes.....	...do.....	5,012	16.1	4,078	9.8

See footnotes at end of table.

TABLE 3. Quantity and Value of Production by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production(pack)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2033- --	CANNED FRUITS AND VEGETABLES --Continued					
20332 --	Canned vegetables--Continued					
20332 76	Sauerkraut <sup>1</sup> .....	1,000 cases.....	6,865	25.1	7,524	19.6
	No. 2.....	..do.....	( <sup>5</sup> )	(NA)	308	(NA)
	No. 300.....	..do.....	348	(NA)	625	(NA)
	No. 303.....	..do.....	2,139	(NA)	2,784	(NA)
	No. 2-1/2.....	..do.....	1,634	(NA)	2,084	(NA)
	No. 10.....	..do.....	947	(NA)	865	(NA)
	Other sizes.....	..do.....	1,797	(NA)	858	(NA)
20332 94	Other canned vegetables.....	..do.....	8,364	30.7	9,825	35.2
20332 00	Canned vegetables, n.s.k.....	..do.....	<sup>2</sup> 3,284	13.0	<sup>2</sup> 11,767	38.7
20333 --	Canned hominy and mushrooms, total.....	..do.....	7,547	52.1	5,358	39.0
20333 15	Hominy.....	..do.....	2,473	5.3	2,577	5.6
	Mushrooms:					
20333 16	4 oz. or less (2Z, etc.).....	1,000 cases of 48	2,255	19.1	1,394	12.4
20333 18	4.1 oz. to 8 oz. (4Z, etc.).....	..do.....	1,137	13.7	586	6.4
20333 19	8.1 oz. to 17 oz. (8Z, etc.).....	..do.....	(NA)	2.7	142	3.4
20333 23	Other sizes.....	..do.....	(NA)	11.3	582	10.6
20333 00	Canned hominy and mushrooms, n.s.k.....	..do.....	-	-	<sup>2</sup> 77	0.6
20334 --	Canned fruit juices, nectars, and concentrates, total.....		(X)	414.4	(X)	380.5
20334 11	Apple juice <sup>1</sup> .....	1,000 cases.....	9,358	27.8	8,031	18.8
	No. 211 cylinder.....	..do.....	28	(NA)	44	(NA)
	No. 3 cylinder.....	..do.....	2,751	(NA)	2,619	(NA)
	24-26Z glass.....	..do.....	51	(NA)	107	(NA)
	32Z glass.....	..do.....	3,853	(NA)	2,821	(NA)
	64Z glass.....	..do.....	619	(NA)	449	(NA)
	1 gallon jug.....	..do.....	759	(NA)	888	(NA)
	Other sizes.....	..do.....	1,297	(NA)	1,085	(NA)
20334 22	Grape juice:					
	22.1 oz. to 27 oz. (24 oz. glass, etc.).....	1,000 cases of 12	6,407	25.6	<sup>4</sup> 205	13.8
20334 23	Other sizes, including glass gallons.....	.....			(NA)	11.9
20334 24						
20334 28	Pineapple juice.....	1,000 cases.....	11,960	26.5	11,919	24.9
20334 31	Grapefruit juice <sup>1</sup> .....	..do.....	14,763	39.8	8,828	25.3
	Individual-5Z, 6Z.....	1,000 cases of 48	2,434	(NA)	1,213	(NA)
	No. 2.....	1,000 cases of 24	1,443	(NA)	1,563	(NA)
	No. 211 cylinder.....	..do.....	106	(NA)	33	(NA)
	No. 3 cylinder.....	1,000 cases of 12	10,673	(NA)	5,900	(NA)
	No. 10.....	1,000 cases of 6.	-	-	67	(NA)
	Other sizes.....	1,000 cases.....	107	(NA)	52	(NA)
20334 42	Orange juice, single strength <sup>1</sup> .....	..do.....	18,288	48.5	17,164	62.4
	40.1 oz. to 60 oz. (No. 3 cylinder, etc.).....	1,000 cases of 12	8,841	25.8	8,825	32.1
20334 43	Other sizes.....	1,000 cases.....	9,447	22.7	8,937	30.3
	4Z.....	1,000 cases of 24	4,450	(NA)	5,058	(NA)
	Individual 5Z, 6Z.....	..do.....	2,708	(NA)	1,349	(NA)
	No. 211 cylinder.....	..do.....	266	(NA)	89	(NA)
	No. 2.....	..do.....	1,774	(NA)	2,368	(NA)
	No. 10.....	1,000 cases of 6.	-	-	18	(NA)
	Other sizes.....	1,000 cases of 12	249	(NA)	55	(NA)
20334 51	Grapefruit-orange juice blend <sup>1</sup> .....	1,000 cases.....	2,870	7.6	2,122	7.3
	Individual 5-6Z.....	1,000 cases of 24	43	(NA)	22	(NA)
	No. 2.....	..do.....	274	(NA)	266	(NA)
	No. 3 cylinder.....	1,000 cases of 12	2,539	(NA)	1,585	(NA)
	No. 211 cylinder.....	1,000 cases of 24	14	(NA)	9	(NA)
	Other sizes.....	1,000 cases.....		(NA)	240	(NA)
20334 53	Grapefruit-pineapple juice blend.....	..do.....	6,562	17.4	8,004	21.8
20334 63	Prune juice:					
	Quart glass.....	1,000 cases of 12	4,690	20.0	5,438	22.0
20334 65	Other sizes.....	1,000 cases.....	4,028	20.3	3,460	12.6
20334 71	Other whole fruit juices and mixtures of whole fruit juices...	..do.....	4,359	13.6	8,928	30.7

See footnotes at end of table.



TABLE 3. Quantity and Value of Production by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production (pack)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2033- --	CANNED FRUITS AND VEGETABLES.--Continued					
20334 --	Canned fruit juices, nectars, and concentrates--Continued					
	Nectars:					
20334 75	4.1 oz. to 7 oz. (6Z., etc.).....	1,000 cases of 48	1,182	4.1	524	1.8
20334 76	7.1 oz. to 13 oz. (No. 12 cylinder, 12Z., etc.).....	...do.....			871	3.7
20334 77	40.1 oz. to 60 oz. (No. 3 cylinder).....	1,000 cases of 12			1,076	4.2
20334 79	Other sizes.....	1,000 cases.....	999	2.6	1,334	3.8
	Fruit juices, concentrated, hot pack:					
20334 85	4.1 oz. to 7 oz.....	1,000 cases of 48	12,457	24.5	375	1.5
20334 89	Other sizes and bulk.....	1,000 gallons....			19,678	36.0
20334 91	Fruit juices, fresh, to be kept under refrigeration (orange, grape, etc.).....	...do.....	159,402	119.3	50,700	71.4
20334 00	Canned fruit juices, n.s.k.....	...do.....	(X)	13.2	(X)	6.8
20335 --	Canned vegetable juices, total.....	1,000 cases.....	32,875	104.2	34,854	91.1
	Tomato juice (including combinations containing 70 percent or more tomato juice) <sup>1</sup> .....	...do.....	31,681	100.8	33,331	87.8
20335 13	40.1 oz. to 60 oz. (No. 3 cylinder, etc.).....	1,000 cases of 12	17,835	53.1	19,334	50.6
20335 19	Other sizes.....	1,000 cases.....	13,846	47.7	13,977	37.1
	Individual 5Z, 6Z.....	...do.....	6,247	(NA)	4,276	(NA)
	8Z.....	...do.....		(NA)	109	(NA)
	No. 211 cylinder.....	...do.....		(NA)	1,414	(NA)
	No. 300 and 303 and 303x500 (17-1/2).....	...do.....	1,491	(NA)	2,324	(NA)
	No. 2.....	...do.....	1,016	(NA)	2,324	(NA)
	No. 10.....	...do.....	256	(NA)	294	(NA)
	Other tin and other glass.....	...do.....	3,578	(NA)	3,127	(NA)
20335 98	Other vegetable juices.....	...do.....	847	2.3	1,125	2.3
20335 00	Canned vegetable juices, n.s.k.....	...do.....	2347	1.1	398	1.0
20336 --	Catsup and other tomato sauces, total.....	...do.....	96,967	512.0	72,340	297.9
	Tomato sauce, except catsup and chili sauce (excluding pulp, puree, or paste):					
20336 13	7.1 oz. to 10 oz. (8 oz. short, 8 oz. tall, etc.).....	1,000 cases of 72	11,355	63.4	8,783	46.3
20336 19	Other sizes.....	1,000 cases.....	13,842	67.8	10,558	40.3
	Catsup <sup>1</sup> .....	...do.....	42,134	200.7	33,313	119.4
20336 33	13.1 oz. to 18 oz. (14 oz. glass bottle, etc.).....	1,000 cases of 24	18,246	84.1	20,448	68.8
20336 39	Other sizes.....	1,000 cases.....	23,888	116.6	12,865	50.6
	12 oz. glass.....	...do.....	792	(NA)	1,194	(NA)
	18, 20, and 24 oz. glass.....	...do.....	16,235	(NA)	8,657	(NA)
	Other sizes.....	...do.....	6,861	(NA)	3,014	(NA)
20336 51	Chili sauce <sup>1</sup> .....	...do.....	2,758	11.8	2,900	9.4
	12 oz. glass.....	...do.....	1,918	(NA)	2,280	(NA)
	No. 10 tin.....	...do.....	569	(NA)	496	(NA)
	Other sizes.....	...do.....	271	(NA)	124	(NA)
	Tomato paste:					
20336 61	4.1 oz. to 7 oz. (6 oz., etc.).....	1,000 cases of 48	3,768	23.3	4,183	17.4
20336 63	100.1 oz. to 115 oz. (No. 10).....	1,000 cases of 6.	2,304	22.7	1,939	13.2
20336 65	Other sizes.....	1,000 cases.....	7,627	55.1	4,416	26.2
	Tomato pulp and puree:					
20336 71	13 oz. and under (No. 1 picnic, etc.).....	1,000 cases of 48	484	2.3	432	1.8
20336 73	13.1 oz. to 27 oz. (No. 303, No. 2, etc.).....	1,000 cases of 24	540	2.4	920	3.3
20336 75	27.1 oz. to 31 oz. (No. 2-1/2, etc.).....	...do.....	1,473	8.8	1,068	4.9
20336 77	100.1 oz. to 115 oz. (No. 10).....	1,000 cases of 6.	4,405	25.8	2,426	9.5
20336 79	Other sizes.....	1,000 cases.....	331	1.7	966	4.3
	Barbecue sauce:					
20336 81	7.1 oz. to 10 oz.....	...do.....	4,431	18.2	( <sup>3</sup> )	( <sup>3</sup> )
20336 83	Other sizes.....	...do.....			( <sup>3</sup> )	( <sup>3</sup> )
20336 00	Catsup and other tomato sauces, n.s.k.....	...do.....	(X)	8.0	2436	1.8

See footnotes at end of table.

TABLE 3. Quantity and Value of Production by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production (pack)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2033- --	CANNED FRUITS AND VEGETABLES --Continued					
20338 --	Jams, jellies, and preserves.....		(X)	246.9	(X)	227.3
	Jams and preserves, pure:					
20338 11	Strawberry.....	Million pounds...	118.5	35.1	125.5	35.7
20338 15	Other.....	...do.....	289.7	81.7	293.1	71.9
	Jellies, pure:					
20338 21	Grape.....	...do.....	166.8	38.8	129.2	29.1
20338 25	Other.....	...do.....	146.6	40.0	173.1	38.9
20338 31	Imitation jellies, jams and preserves.....	...do.....	40.0	6.0	25.9	3.9
20338 41	Marmalades.....	...do.....	14.8	3.8	22.1	4.5
20338 51	Fruit butter.....	...do.....	42.7	6.9	52.5	7.8
20338 61	Maraschino cherries (excluding glace and candied).....	Million gallons..	5.3	22.0	5.6	19.4
20338 00	Jams, jellies, and preserves, n.s.k.....	.....	(X)	12.6	(X)	16.0
20330 00	Canned fruits and vegetables, preserves, jams, and jellies, n.s.k., (For companies with 10 or more employees. See Note)...	.....	(X)	118.0	}	58.5
20330 02	Canned fruits and vegetables, preserves, jams, and jellies, n.s.k., (For companies with less than 10 employees. See Note).	.....	(X)	16.5		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For both 1967 and 1963, quantity and value data were collected for two categories: The largest can size and all other can sizes combined. The quantity data for "All other can sizes" are further allocated by sizes based on percentages supplied by the National Canners Association. For such categories, the value data are not available.

<sup>2</sup>Quantity estimated based on quantity-value relationship for other products.

<sup>3</sup>Data are not collected separately in 1963.

<sup>4</sup>Data for 1963, includes an undetermined number of 12Z vacuum size containers. For 1967, this product is included "with other sizes."

<sup>5</sup>Included with other sizes.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2033.--CANNED FRUITS AND VEGETABLES					
	Materials, ingredients, containers, and supplies consumed, total.....		(X)	1,900.9	(X)	1,599.2
	Fresh fruit:					
012231	Oranges.....	1,000 short tons.	1,472.3	52.5	886.6	62.1
012211	Apples.....	do.....	700.8	43.0	601.9	29.6
012221	Apricots.....	do.....	101.8	14.0	119.1	11.6
012241	Grapes.....	do.....	249.4	22.3	242.9	25.8
012261	Peaches.....	do.....	682.7	67.4	829.0	59.9
012271	Pears.....	do.....	249.7	41.4	254.4	29.9
012273	Pineapples.....	do.....	994.1	33.1	1,101.6	33.3
012281	Strawberries.....	do.....	21.3	6.8	26.7	7.5
012291	Other fresh fruits.....	do.....	(X)	84.3	(X)	65.6
	Fresh vegetables:					
012351	Cucumbers.....	do.....	27.7	2.7	25.7	2.2
012311	Green peas.....	do.....	350.3	35.5	352.7	32.8
011951	Irish potatoes.....	do.....	134.9	4.3	199.7	6.4
012341	Tomatoes.....	do.....	4,442.1	185.9	3,376.9	104.9
012331	Sweet corn.....	do.....	1,427.3	33.1	1,334.7	26.7
012321	Snap or wax beans.....	do.....	373.9	45.6	275.2	26.5
012391	Other fresh vegetables.....	do.....	(X)	80.6	(X)	75.5
	Other materials, ingredients, containers, and supplies:					
203413	Dried beans.....	do.....	38.8	8.1	53.2	9.2
206011	Sugar (cane and beet).....	1,000 cwt.....	11,142.5	108.3	12,211.7	117.8
209006	Fats and oils, all types.....	million lbs.....	53.8	6.8	53.6	5.2
203411	Dried fruit.....	1,000 short tons.	39.3	14.8	42.0	14.8
201013	Fresh and prepared meats, other than poultry.....	million lbs.....	7.9	1.9	4.6	1.5
204110	Wheat flour.....	1,000 cwt.....	(1)	(1)	(1)	(1)
201501	Dressed poultry.....	million lbs.....	(1)	(1)	(1)	(1)
203348	Concentrated fruit juices.....	million gals.....	8.5	16.6	(2)	(2)
	Containers:					
265011	Paperboard containers.....	.....	(X)	47.3	(X)	42.6
341101	Metal cans.....	.....	(X)	415.4	(X)	389.5
322102	Glass containers.....	.....	(X)	126.6	(X)	101.3
970099	All other materials, ingredients, containers, and supplies, consumed.....	.....	(X)	285.8	(X)	234.0
976000	Materials, n.s.k. <sup>3</sup> .....	.....	(X)	116.8	(X)	82.8

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Included in material code 970099, all other materials.<sup>2</sup>Not collected separately in 1963.<sup>3</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2033, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**Includes the f.o.b. plant value of the primary products produced in the plant as well as the shipments value of secondary products and miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further production. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**Derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of production plus miscellaneous receipts. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is the difference between the sales value and cost of merchandise sold without further manufacture or processing) plus the net change in work-in-process inventories between the beginning and the end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



1967 CENSUS OF  
MANUFACTURES

MC67(P)-20C-4

## INDUSTRY SERIES

## Dehydrated food products

SIC Code 2034

preliminary  
report

Dried and Dehydrated Fruits and Vegetables Industry includes establishments primarily engaged in sun drying or artificially dehydrating fruits, vegetables, and nuts, or in manufacturing packaged soup mixes from dehydrated ingredients. Establishments primarily engaged in the grading and marketing of farm dried fruits, such as prunes and raisins, are classified in industry 5049.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Dehydrated Food Products Industry amounted to \$442.4 million, an increase of 38.8

percent compared with 1963. Value added by manufacture at \$179.2 million in 1967 was 54.7 percent more than value added in 1963. Average employment in the industry showed an increase of 21.7 percent from 1963 to a total of 11.2 thousand employees in 1967.

Of the \$442.4 million total value of shipments and other receipts of establishments classified as producers of dehydrated foods, \$26.5 million were products primary to other industries; and \$9.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
	INDUSTRY 2034. --DEHYDRATED FOOD PRODUCTS													
1967 Census....	179	81	11.2	59.3	9.7	18.5	45.9	179.2	267.5	442.4	14.8	121.0	94	90
1966 ASM¹.....	(NA)	(NA)	10.1	49.0	8.6	16.9	37.8	161.7	246.2	395.2	14.1	100.2	(NA)	(NA)
1965 ASM¹.....	(NA)	(NA)	9.8	46.3	8.4	16.1	35.0	130.7	230.5	363.7	11.0	85.8	(NA)	(NA)
1964 ASM¹.....	(NA)	(NA)	9.2	42.5	7.8	15.2	32.1	127.6	203.0	321.2	10.4	91.6	(NA)	(NA)
1963 Census....	176	80	9.2	41.6	7.8	15.3	31.2	115.8	208.9	318.7	16.2	89.8	96	89
1962 ASM¹.....	(NA)	(NA)	*9.2	*41.2	*7.9	*14.8	*30.3	*125.3	*208.8	320.1	9.8	85.0	(NA)	(NA)
1961 ASM¹.....	(NA)	(NA)	9.3	38.4	8.1	15.2	29.2	103.8	208.1	304.4	7.2	70.3	(NA)	(NA)
1960 ASM¹.....	(NA)	(NA)	8.6	36.2	7.4	14.8	27.0	97.9	200.6	288.7	8.0	65.5	(NA)	(NA)
1959 ASM¹.....	(NA)	(NA)	8.0	30.9	6.8	13.2	23.2	79.4	186.7	263.9	7.8	53.7	(NA)	(NA)
1958 Census²....	161	67	7.6	28.3	6.6	12.8	21.8	75.5	188.2	273.3	6.7	49.8	97	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of dehydrated fruits, vegetables, and soup mixes shipped by all producers in 1967 was \$452.6 million of which \$406.0 million, or 90 percent, were shipped by plants classified in industry 2034, Dehydrated Food Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 89 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2034. --DEHYDRATED FOOD PRODUCTS												
United States, total.....	179	81	11.2	59.3	9.7	18.5	45.9	179.2	267.5	442.4	14.8	9.2	115.8
Mountain.....	12	8	2.1	10.4	1.9	3.6	8.0	22.5	29.1	52.0	3.0	(D)	(D)
Pacific.....	125	56	6.9	36.8	5.9	11.2	28.4	95.7	180.5	273.5	8.6	(D)	(D)
California.....	108	46	6.0	32.5	5.2	9.7	25.0	82.3	158.6	240.4	6.3	6.4	67.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2034- --	DEHYDRATED FRUITS, VEGETABLES, AND SOUP MIXES, TOTAL.....	Million pounds	1,447.1	452.6	1,191.6	334.9
20341 --	Dried fruits and vegetables, except soup mixes.....	...do.....	1,268.3	344.9	1,124.2	284.5
	Fruits, dried and dehydrated:					
20341 13	Raisins.....	...do.....	402.2	75.9	373.1	67.3
20341 15	Prunes.....	...do.....	287.8	64.9	329.3	69.0
20341 17	Figs.....	...do.....	21.4	4.3	32.6	6.5
20341 18	Dates.....	...do.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
20341 21	Apples.....	...do.....	33.1	16.9	33.2	10.5
20341 29	Other dried and dehydrated fruits.....	...do.....	<sup>1</sup> 50.8	<sup>1</sup> 28.1	<sup>1</sup> 82.5	32.5
	Vegetables, dried and dehydrated:					
	Potatoes:					
20341 31	Consumer sizes (1 pound and under).....	...do.....	110.6	38.2	57.5	18.7
20341 35	Commercial sizes (over 1 pound).....	...do.....	211.8	41.6	109.7	23.8
20341 39	Other dried and dehydrated vegetables.....	...do.....	136.0	71.0	95.3	53.4
20341 00	Dried or dehydrated fruit and vegetables and freeze-dried products (except soups), n.s.k.....	...do.....	<sup>2</sup> 14.6	4.0	<sup>2</sup> 10.9	2.8
20342 11	Soup mixes (dried and dehydrated).....	...do.....	79.2	76.4	46.5	44.5
20340 00	Dried and dehydrated foods products, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	<sup>2</sup> 88.7	27.8	<sup>2</sup> 20.9	5.9
20340 02	Dried and dehydrated foods products, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	<sup>2</sup> 10.9	3.5		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

<sup>1</sup>Data for product code 2034118 to avoid disclosing figures for individual companies.

<sup>2</sup>Quantity estimated based on the quantity-value relationship for other products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2034.--DEHYDRATED FOOD PRODUCTS					
	Materials, ingredients, containers, and supplies consumed, total.....		(X)	253.7	(X)	200.2
012301	Fresh vegetables.....	1,000 short tons..	1,322.6	50.7	735.0	26.6
012203	Fresh fruits.....	..do.....	299.4	12.3	(X)	3.0
203411	Dried fruits.....	..do.....	359.8	103.9	399.6	122.0
206011	Sugar (cane and beet).....	1,000 cwt.....	123.4	1.3	166.7	1.6
.970099	All other materials, ingredients, containers, and supplies consumed.....		(X)	70.7	(X)	39.2
976000	Materials, n.s.k. <sup>1</sup> .....		(X)	14.8	(X)	7.8

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data, for 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2034, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--** Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

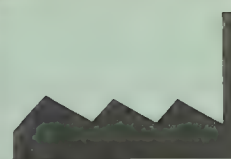
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OFFICIAL BUSINESS





# 1967 CENSUS OF MANUFACTURES



MC 67(P)-20C-5

## INDUSTRY SERIES

**preliminary  
report**

### Pickles, sauces, and salad dressings

SIC Code 2035

The Pickled Fruits and Vegetables; Vegetable Sauces and Seasonings; Salad Dressings Industry includes establishments primarily engaged in pickling and brining fruits and vegetables, and in manufacturing salad dressings, vegetable relishes, sauces, and seasonings. Establishments primarily engaged in manufacturing catsup and similar tomato sauces are classified in industry 2033, and those packing purchased pickles and olives in trade industries.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products produced and miscellaneous receipts of establishments classi-

fied in the Pickles, Sauces, and Salad Dressings Industry amounted to \$783.6 million, an increase of 11.6 percent compared with 1963. Value added by manufacture at \$280.4 million in 1967 was 12.4 percent more than value added in 1963. Average employment in the industry showed an increase of 2.6 percent from 1963 to a total of 19.5 thousand employees in 1967.

Of the \$783.6 million total value of production and other receipts of establishments classified as producers of pickles, sauces, and salad dressings, \$87.1 million were products primary to other industries; and \$28.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 88 percent of the total manufactured product shipments, primary and secondary. This percent, called the

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture <sup>3</sup>	Cost of materials	Value of production	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2035.--PICKLES, SAUCES, AND SALAD DRESSINGS														
1967 Census....	<sup>3</sup> 527	183	19.5	97.8	15.9	31.4	69.5	280.4	506.3	783.6	14.6	140.4	88	85
1966 ASM <sup>1</sup> .....	(NA)	(NA)	21.1	101.1	16.9	33.5	68.2	273.0	546.3	817.5	14.4	134.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	19.7	91.1	15.9	31.1	61.7	280.3	503.3	784.0	11.0	120.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	*(NA)	*(NA)	*18.7	*87.7	*14.9	*29.8	*60.4	*255.1	*470.6	*726.4	*16.9	*113.8	*(NA)	*(NA)
1963 Census....	588	184	19.0	83.7	15.4	29.9	58.3	249.4	427.6	677.3	11.0	110.4	79	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	21.5	93.2	17.5	33.7	68.2	243.2	448.5	695.9	13.3	104.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	21.7	92.1	17.3	33.7	63.1	237.2	452.6	692.5	*12.5	104.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	21.8	89.7	17.0	32.7	59.0	221.0	403.6	630.2	*13.7	87.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	19.4	77.1	15.2	29.2	51.5	181.4	378.0	564.4	13.1	78.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	619	205	19.5	70.5	15.6	29.8	48.5	164.6	361.5	525.3	11.2	85.2	81	82

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

<sup>4</sup>Only work-in-process inventories are used in the calculation of value added.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

specialization ratio for the industry, was 79 percent in 1963.

The total value of pickles, sauces, and salad dressings shipped by all producers in 1967 was \$788.8 million of which \$668.4 million, or 85 percent, were shipped by plants classified in industry 2035, Pickles, Sauces and Salad Dressings, while the remainder was shipped by plants classified

in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2035, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-20F, Salad Dressing, Mayonnaise, and Related Products.

The data vary as a result of reporting differences for individual plants furnishing data in both surveys.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2035.--PICKLES, SAUCES, AND SALAD DRESSINGS												
United States, total.....	527	183	19.5	97.8	15.9	31.4	69.5	<sup>1</sup> 280.4	506.3	783.6	14.6	19.0	249.4
New England.....	24	8	0.6	2.7	0.5	1.1	2.2	14.2	13.6	27.9	0.3	0.4	10.1
Middle Atlantic.....	101	22	2.1	11.5	1.7	3.6	8.3	37.1	60.2	97.3	1.4	2.9	61.1
New Jersey.....	22	5	0.6	3.7	0.5	1.0	2.8	10.0	25.5	35.5	0.3	1.0	25.5
East North Central....	133	56	6.4	30.3	5.5	10.2	23.2	79.9	163.5	241.0	5.2	5.9	61.5
Ohio.....	26	■	0.8	4.7	0.7	1.4	3.4	11.4	16.8	28.1	1.2	0.8	8.0
Indiana.....	8	6	0.8	4.6	0.7	1.3	3.1	10.5	28.0	38.4	0.5	0.9	11.4
Illinois.....	33	13	1.0	5.5	0.8	1.6	4.5	10.9	58.5	69.4	0.4	1.0	10.1
Michigan.....	46	21	2.6	11.1	2.3	4.3	8.7	38.1	45.4	81.3	2.7	2.1	24.7
Wisconsin.....	20	10	1.1	4.5	1.0	1.7	3.4	9.0	14.7	23.8	0.5	1.1	7.4
West North Central....	43	■	0.7	3.5	0.5	1.1	2.1	24.1	21.8	46.1	0.5	0.7	16.2
South Atlantic.....	54	27	3.0	12.8	2.5	5.0	9.2	29.2	70.7	99.0	2.2	3.1	24.3
Maryland.....	15	7	0.6	2.5	0.5	0.9	1.8	6.0	14.0	19.9	0.3	0.7	4.6
North Carolina.....	11	7	0.9	4.1	0.8	1.7	2.7	8.0	12.9	20.4	1.2	0.6	5.4
Georgia.....	11	4	1.0	4.2	0.9	1.6	3.2	8.9	30.3	38.9	0.4	1.3	8.0
East South Central....	17	9	1.1	5.3	0.8	1.7	3.1	13.1	22.5	35.3	0.4	0.9	10.6
Alabama.....	5	4	0.4	1.6	0.3	0.6	1.0	4.6	9.7	14.4	(D)	0.3	2.0
West South Central....	38	15	1.8	8.5	1.5	3.2	6.1	16.1	49.9	65.9	1.0	1.9	14.1
Texas.....	22	■	1.0	4.9	0.9	1.9	3.9	5.6	36.0	41.6	0.7	1.0	7.1
West.....	117	37	3.9	23.0	2.8	5.6	15.2	66.6	104.0	171.0	3.5	3.3	51.5
Colorado.....	■	3	0.4	1.3	0.3	0.7	1.1	1.6	4.2	6.0	0.1	(D)	(D)
California.....	69	25	2.6	15.9	1.9	3.8	11.0	52.0	77.7	129.8	(D)	2.6	41.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

<sup>1</sup>Only work-in-process inventories are used in the calculation of value added.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production (part)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2035- --	PICKLED FRUITS AND VEGETABLES, SAUCES AND SALAD DRESSING, TOTAL.....	Million gallons	516.5	788.8	<sup>r</sup> 415.9	619.0
20352 --	Pickles and other pickled products.....	...do.....	207.0	260.6	178.1	228.1
	Finished pickles:					
	Cucumber:					
20352 11	Dill.....	...do.....	52.4	63.9	38.2	41.4
20352 13	Sour.....	...do.....	8.1	9.1	6.4	7.3
20352 15	Sweet.....	...do.....	27.3	48.2	25.2	45.4
20352 17	Fresh pack.....	...do.....	52.4	63.8	41.8	49.1
20352 33	Other finished pickles and pickle products, including mixes, relishes, etc.....	...do.....	37.8	53.7	27.4	40.3
	Unfinished pickled products:					
20352 71	Unfinished pickles (salt stock).....	...do.....	18.0	8.5	<sup>r</sup> 19.6	7.6
20352 75	Brined cherries.....	...do.....	0.8	2.2	19.5	37.0
20352 98	Other bulk pickled products such as mushrooms, sauerkraut, etc. ....	...do.....	5.6	5.6		
20352 00	Pickles and other pickled products, n.s.k.....	...do.....	<sup>1</sup> 4.6	5.6		
20353 --	Meat sauces (except tomato).....	...do.....	62.5	97.9	60.3	94.4
20353 11	Prepared mustard.....	...do.....	41.4	51.3	24.4	30.6
20353 53	Other sauces for meat (worcestershires, and similar types).....	...do.....	18.7	42.3	28.4	60.8
20353 55	Soy sauces.....	...do.....	1.6	3.1		
20353 00	Meat sauces (except tomato, n.s.k.).....	...do.....	<sup>1</sup> 0.8	1.2	7.5	3.0
20354 --	Salad dressings, mayonnaise, and sandwich spread with salad dressing base:					
	As reported in the census of manufactures.....	...do.....	207.0	372.1	160.2	278.6
	As reported on Census annual Form MA-20F.....	...do.....	191.0	345.0	160.3	279.8
	Dressing base:					
	Spoon-type:					
20354 11	Salad dressing.....	...do.....	69.4	86.6	62.7	81.6
20354 23	Mayonnaise.....	...do.....	79.0	146.7	66.3	121.5
20354 25	Sandwich spread.....	...do.....	7.5	14.2	6.9	14.2
20354 27	Refrigerated dressing.....	...do.....	2.2	6.8	1.2	3.9
20354 29	All other spoon-type dressing.....	...do.....	5.4	12.4	3.3	7.5
	Pourable dressings:					
20354 31	French dressing.....	...do.....	10.8	22.9	10.4	22.8
20354 33	Oil and vinegar dressing.....	...do.....	6.0	21.3	4.5	15.4
20354 35	Cheese dressing.....	...do.....	1.4	5.1	0.8	3.0
20354 37	Low calorie and dietetic dressing.....	...do.....	2.6	7.1	1.3	4.1
20354 39	Other pourable-type dressing.....	...do.....	6.7	22.0	2.9	5.8
20350 00	Pickled fruits and vegetables, sauces, and salad dressing products, n.s.k. (For companies with 10 employees. See Note.).....	...do.....	<sup>1</sup> 33.1	48.2	17.3	18.0
20350 02	Pickled fruits and vegetables, sauces, and salad dressing products, n.s.k. (For companies with less than 10 employees. See Note.)....	...do.....	<sup>1</sup> 6.9	10.0		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. <sup>r</sup>Revised.

<sup>1</sup>Quantity was estimated based on the quantity value relationship for the products in the product class.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2035.--PICKLES, SAUCES, AND SALAD DRESSINGS					
	Materials, ingredients, containers, and supplies consumed, total.....		(X)	480.8	(X)	402.8
012351	Cucumbers.....	1,000 short tons.	570.9	58.9	472.3	32.3
012301	Other fresh vegetables.....	..do.....	76.0	6.0	(X)	( <sup>1</sup> )
012203	Fresh fruits.....	..do.....	6.1	1.3	(X)	( <sup>1</sup> )
203411	Dried fruits.....	..do.....	0.4	0.2	( <sup>1</sup> )	( <sup>1</sup> )
204110	Wheat flour.....	1,000 cwt.....	16.9	0.1	( <sup>1</sup> )	( <sup>1</sup> )
204602	Corn sirup.....	Million lbs.....	37.3	2.4	( <sup>1</sup> )	( <sup>1</sup> )
206011	Sugar (cane and beet).....	..do.....	2,301.3	23.2	2,666.1	26.7
209006	Fats and oils, all types.....	Million lbs.....	732.1	92.5	836.3	95.1
322101	Glass containers.....	1,000 gross.....	1,183.0	88.5	(X)	77.5
970099	All other materials, ingredients, containers and supplies consumed.....	.....	(X)	175.7	(X)	132.5
976000	Materials, n.s.k. <sup>2</sup> .....	.....	(X)	32.0	(X)	38.7

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Included in material code 970099, "All other materials."<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2035, these small establishments accounted for approximately 2 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20C-6

## INDUSTRY SERIES

### Fresh or frozen packaged fish

SIC Code 2036

**preliminary  
report**

The Fresh or Frozen Packaged Fish and Sea Foods Industry includes establishments primarily engaged in preparing fresh and raw or cooked frozen packaged fish and other seafood. This industry also includes establishments primarily engaged in the shucking and packing of fresh oysters in nonsealed containers.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of production and miscellaneous receipts of establishments classified in the Fresh or Frozen Packaged Fish Industry amounted to \$558.2 million, an increase of 42 percent compared with 1963. Value added by

manufacture at \$165.3 million in 1967 was 39 percent more than value added in 1963. Average employment in the industry showed an increase of 7 percent from 1963 to a total of 21.5 thousand employees in 1967.

Of the \$558.2 million total value of production and other receipts of establishments classified as fresh or frozen packaged fish manufacturers, \$17.9 million were products primary to other industries; and \$43.0 million were receipts for miscellaneous activities. The industry production of primary products represented 97 percent of the total manufactured product production, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of production	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2036.--FRESH OR FROZEN PACKAGED FISH														
1967 Census....	3499	242	21.5	77.4	19.4	32.9	60.1	165.3	394.3	558.2	8.7	75.3	97	94
1966 ASM <sup>1</sup> .....	(NA)	(NA)	19.2	65.5	16.9	29.1	48.8	151.7	341.5	492.7	9.4	70.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	18.7	62.0	16.9	29.7	47.2	138.3	326.1	464.2	6.2	59.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	20.6	60.2	18.6	32.9	46.3	128.1	301.2	428.2	5.4	63.5	(NA)	(NA)
1963 Census....	547	255	20.1	56.5	17.9	32.1	44.6	118.5	272.7	391.2	6.1	53.9	95	94
1962 ASM <sup>1</sup> .....	(NA)	(NA)	16.0	45.3	14.5	26.5	35.0	101.3	234.5	344.5	10.0	44.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	17.2	43.9	15.3	28.4	33.7	101.5	221.7	332.3	*3.4	40.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	18.8	45.1	16.9	32.6	34.7	100.3	219.9	328.3	*4.0	43.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	18.0	42.7	15.9	30.2	32.8	89.7	225.2	317.0	*6.9	36.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	446	226	17.6	41.4	15.6	26.2	32.3	83.5	226.9	310.1	3.7	39.5	93	96

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued December 1969

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**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of fresh or frozen packaged fish produced by all producers in 1967 was \$526.7 million of which \$497.3 million, or 94 percent, were produced by plants classified in industry 2036, Fresh or Frozen Packaged Fish, while the remainder was produced by plants classified in other industries. This percent, called the coverage ratio, was 94 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of production	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2036.--FRESH OR FROZEN PACKAGED FISH												
United States, total.....	1499	242	21.5	77.4	19.4	32.9	60.1	165.3	394.3	558.2	8.7	20.1	118.5
New England.....	65	35	3.3	16.1	2.8	5.3	11.7	38.1	77.0	115.2	1.3	3.3	27.3
Maine.....	12	8	0.7	2.9	0.7	1.1	2.5	3.9	5.3	9.3	0.3	(D)	(D)
Massachusetts.....	46	23	2.4	12.6	2.0	4.1	8.9	32.9	70.2	103.2	1.0	11.1	24.1
Middle Atlantic.....	36	18	1.5	7.3	1.2	2.2	4.5	17.4	31.8	49.3	1.2	1.0	13.4
New York.....	17	7	0.4	1.9	0.4	0.7	1.4	4.9	9.9	14.8	0.1	0.3	5.0
North Central.....	13	6	0.6	2.8	0.5	0.8	1.9	10.1	20.1	30.2	0.7	0.5	5.0
South.....	277	127	12.7	37.2	11.8	19.5	30.5	69.1	198.1	265.9	4.1	12.3	50.1
South Atlantic.....	220	99	9.3	27.7	8.6	14.0	22.3	43.7	121.0	164.2	3.0	9.3	38.5
Maryland.....	53	28	1.7	4.2	1.6	2.1	3.6	7.3	11.1	18.5	0.5	1.9	7.0
North Carolina....	28	6	0.3	0.9	0.3	0.5	0.8	1.6	2.0	3.7	0.1	0.4	1.2
South Carolina....	9	2	0.1	0.2	0.1	0.1	0.2	0.4	0.3	0.7	(Z)	(D)	(D)
Georgia.....	12	5	2.3	6.9	2.1	3.5	5.4	9.8	34.3	43.3	(D)	2.2	11.7
Florida.....	37	18	2.7	9.6	2.6	4.9	7.5	13.9	54.9	69.0	0.9	2.3	10.0
Texas.....	22	14	2.6	7.4	2.5	4.4	6.5	20.8	66.1	86.0	0.8	1.9	7.8
West.....	108	56	3.4	14.0	3.1	5.1	11.5	30.6	67.3	97.7	1.5	2.9	22.7
Oregon.....	16	10	0.6	1.5	0.5	0.7	1.3	2.6	5.3	7.9	0.1	0.6	2.3
California.....	29	12	1.0	4.0	0.9	1.6	3.3	9.0	18.6	27.4	0.4	1.0	7.2
Alaska.....	24	17	0.9	4.5	0.7	1.3	3.6	8.7	10.8	19.6	0.5	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

<sup>1</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production (pack)			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2036--	FRESH OR FROZEN PACKAGED FISH, TOTAL.....	Million pounds	856.5	526.7	697.2	362.8
20361--	Frozen packaged fish and other seafood, including soup.....	...do.....	597.2	383.9	517.1	267.0
	Frozen packaged fish, excluding shellfish:					
20361 11	Fillet and steaks.....	...do.....	<sup>e</sup> 136.7	52.2	95.4	32.5
20361 12	Fish sticks.....	...do.....	<sup>e</sup> 69.5	28.9	89.9	38.5
20361 14	Fish portions.....	...do.....	102.8	51.5	101.8	41.4
	Frozen packaged shellfish:					
20361 16	Shrimp.....	...do.....	166.0	165.6	113.6	88.0
20361 17	Other shellfish (oyster, crab, etc.).....	...do.....	61.3	52.0	33.3	22.9
20361 19	Other frozen seafoods (soups, stews, chowders, dinners, pies, etc.).....	...do.....	51.9	27.9	44.4	23.6
20361 00	Frozen packaged fish and other seafood, n.s.k.....	...do.....	<sup>1</sup> 9.0	5.8	<sup>1</sup> 38.7	20.0
20362--	Fresh packaged fish and other seafood, total.....	...do.....	136.4	66.6	143.3	76.6
20362 13	Fresh packaged fish, excluding shellfish.....	...do.....	<sup>e</sup> 81.0	30.2	76.1	25.9
20362 15	Fresh packaged shellfish.....	...do.....	<sup>e</sup> 51.5	34.5	43.2	37.9
20362 00	Fresh packaged fish and other seafood, n.s.k.....	...do.....	<sup>1</sup> 3.9	1.9	<sup>1</sup> 24.0	12.8
20360 00	Fresh or frozen packaged fish, n.s.k.. (For companies with 10 or more employees. See Note.).....	.....	<sup>1</sup> 96.9	60.1	<sup>1</sup> 36.8	19.2
20360 02	Fresh or frozen packaged fish, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	<sup>1</sup> 26.0	16.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind.

<sup>1</sup>Quantity estimated based on quantity-value relationship reported for other products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2036.--FRESH OR FROZEN PACKAGED FISH					
	Materials, ingredients, containers, and supplies consumed, total.....	.....	(X)	367.1	(X)	242.4
091211	Finfish, round.....	1,000 short tons..	<sup>e</sup> 303.0	102.8	246.3	86.2
091311	Shellfish.....	...do.....	<sup>e</sup> 268.1	156.5	140.2	88.0
209006	Fats and oils, all types (purchased as such).....	Million lbs.....	19.1	3.0	20.0	3.0
340001	Metal containers.....	.....	(X)	(Z)	(X)	3.8
970099	All other materials, ingredients, containers, and supplies consumed.....	.....	(X)	<sup>2</sup> 52.8	(X)	31.0
976000	Materials, n.s.k. <sup>1</sup> .....	.....	(X)	52.0	(X)	30.3

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable. (Z) Less than 0.1 when rounded.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

<sup>2</sup>Includes material code 340001.

### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2036, these small establishments accounted for approximately 3 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Production--**Includes the f.o.b. plant value of the primary products produced in the plant as well as the shipments value of secondary products and miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further production. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

Establishments in this industry were asked to report their value of production rather than value of shipments as usually reported in the census of manufactures. However, commission plants packaging fish or shellfish owned by others reported the commission receipts received rather than the value of the packaged seafood. To the extent that the packaging is performed for nonmanufacturing companies, the products are excluded from table 3. Also excluded are

products packaged at nonmanufacturing locations such as cold storage warehouses.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**Derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of production plus miscellaneous receipts. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is the difference between the sales value and cost of merchandise sold without further manufacture or processing) plus the net change in work-in-process inventories between the beginning and the end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20C-7

## INDUSTRY SERIES

### Frozen fruits and vegetables

SIC Code 2037

**preliminary  
report**

The Frozen Fruits, Fruit Juices, Vegetables, and Specialties Industry includes establishments primarily engaged in quick freezing and cold packing (freezing) fruits, fruit juices, vegetables, and specialties.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Frozen Fruits and Vegetables Industry amounted to \$2,117.1 million, an increase of 37 percent compared with 1963. Value added by manufacture at \$781.3 million in 1967 was 42 percent more than value added in 1963. Average

employment in the industry showed an increase of 27 percent from 1963 to a total of 65.6 thousand employees in 1967.

Of the \$2,117.1 million total value of shipments and other receipts of establishments classified as manufacturers of frozen fruits and vegetables, \$186.6 million were products primary to other industries; and \$86.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 91 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

The total value of frozen fruits and vegetables shipped by all producers in 1967 was \$2,017.7

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2037.--FROZEN FRUITS AND VEGETABLES													
1967 Census....	<sup>3</sup> 610	365	65.6	301.7	57.1	112.4	233.9	781.3	1,336.7	2,117.1	77.6	380.2	91	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	62.3	265.6	54.6	105.9	208.3	679.0	1,207.5	1,884.6	81.9	347.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	58.8	245.1	50.8	100.2	189.9	627.0	1,186.9	1,816.0	62.9	315.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	53.6	218.5	46.3	91.4	168.8	560.5	1,095.8	1,651.6	50.0	319.6	(NA)	(NA)
1963 Census....	650	346	51.7	202.4	44.7	86.7	154.4	550.2	999.5	1,548.7	44.6	295.8	89	89
1962 ASM <sup>1</sup> .....	(NA)	(NA)	45.4	175.1	38.6	77.4	133.0	428.8	897.9	1,323.7	40.1	247.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	45.1	164.7	38.8	77.1	126.3	403.0	879.4	1,274.6	28.4	235.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	43.8	154.5	37.8	75.8	119.9	402.0	801.9	1,206.6	28.7	221.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	41.9	140.8	36.0	71.3	107.3	346.0	763.0	1,111.8	23.1	219.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	426	263	39.5	126.8	34.1	66.3	96.9	323.8	702.9	1,025.9	21.0	200.7	87	91

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

million of which \$1,844.4 million, or 91 percent, were shipped by plants classified in industry 2037, Frozen Fruits and Vegetables, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 89 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
INDUSTRY 2037.--FROZEN FRUITS AND VEGETABLES													
United States, total.....	610	365	65.6	301.7	57.1	112.4	233.9	781.3	1,336.7	2,117.1	77.6	51.7	550.2
New England.....	32	17	2.8	12.3	2.5	5.2	9.9	32.3	38.7	70.9	2.6	2.4	18.9
Maine.....	14	11	2.4	10.0	2.1	4.5	8.2	26.4	31.1	57.5	2.3	2.1	14.6
Middle Atlantic.....	104	60	8.6	42.5	7.1	14.5	32.1	127.8	152.2	281.4	12.8	6.2	72.8
New York.....	47	29	3.7	17.9	3.2	6.4	13.8	63.3	75.3	139.9	7.6	(D)	(D)
New Jersey.....	23	12	2.2	11.4	1.9	3.9	9.0	23.7	33.7	61.3	2.0	3.0	37.6
Pennsylvania.....	34	19	2.7	13.2	2.0	4.3	9.3	40.8	43.2	84.2	3.3	(D)	(D)
East North Central....	114	63	8.8	45.2	7.1	14.4	30.4	141.6	184.6	326.3	22.4	4.9	69.2
Wisconsin.....	11	7	0.9	4.5	0.8	1.5	3.4	9.0	16.1	25.6	0.8	0.2	1.2
West North Central....	33	17	5.5	22.7	5.0	9.9	19.3	53.0	156.6	209.6	3.0	5.3	48.3
South Atlantic.....	68	49	10.5	47.2	9.2	18.7	36.0	140.1	318.3	458.9	12.3	10.3	150.2
North Carolina.....	5	4	0.2	0.4	0.2	0.2	0.3	0.8	1.0	1.9	(D)	(D)	(D)
Georgia.....	13	7	1.2	4.9	1.0	1.7	3.6	12.7	18.3	30.9	0.8	(D)	(D)
Florida.....	29	23	5.4	26.7	4.6	10.7	20.9	82.4	220.5	303.4	7.2	5.3	94.0
East South Central....	17	11	1.7	5.4	1.5	2.6	4.3	12.5	23.6	36.1	1.8	1.5	8.1
West South Central....	43	26	4.5	16.2	4.0	7.8	12.4	44.0	69.6	113.5	1.4	3.4	24.6
Mountain.....	33	16	4.6	19.9	4.2	8.4	16.9	46.9	59.8	106.7	3.6	2.9	21.5
Idaho.....	16	11	4.1	17.8	3.8	7.6	15.4	39.8	53.0	92.8	3.2	2.6	19.7
Pacific.....	166	106	18.6	90.3	16.5	30.8	72.6	183.1	333.2	513.7	17.6	15.0	136.6
Washington.....	46	31	4.4	21.5	3.9	7.6	17.9	48.9	66.1	114.2	5.1	(D)	(D)
California.....	86	53	9.9	47.6	8.8	15.8	37.7	95.7	195.6	289.5	7.2	8.1	76.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2037- --	FROZEN FRUITS AND VEGETABLES, TOTAL.....		(X)	2,017.7	(X)	1,460.8
20371 --	Frozen fruits, juices, and ades.....		(X)	419.0	(X)	436.3
	Frozen fruits and berries:					
20371 35	Strawberries.....	Million lbs.....	152.2	38.6	212.6	44.6
20371 41	Red sour cherries.....	do.....	48.8	13.6	51.6	8.8
20371 51	Peaches.....	do.....	37.3	5.8	58.2	7.9
20371 55	Apples and applesauce.....	do.....	66.8	9.0	95.3	10.8
20371 69	Other frozen fruits and berries.....	do.....	134.8	30.5	111.0	20.4
	Frozen fruit and berry juices, concentrated:					
	Orange juice:					
20371 81	4.1 oz. to 7 oz.....	Mil. cases of 48.	19.9	109.3	12.8	124.8
20371 82	10.1 oz. to 13 oz.....	Mil. cases of 24.	10.7	58.9	7.2	67.8
20371 83	Other sizes.....	Mil. cases.....	7.5	45.2	5.0	39.2
	Lemonade:					
20371 85	4.1 oz. to 7 oz.....	Mil. cases of 48.	2.6	8.5	4.7	20.1
20371 86	10.1 oz. to 13 oz.....	Mil. cases of 24.	1.0	3.2	1.1	3.7
20371 87	Other sizes.....	Mil. cases.....	3.3	7.7	1.0	3.3
	Grape juice:					
20371 91	4.1 oz. to 7 oz.....	Mil. cases of 48.	2.1	12.3	2.1	13.0
20371 92	10.1 oz. to 13 oz.....	Mil. cases of 24.	2.1	<sup>1</sup> 10.2	1.1	6.9
20371 93	Other sizes.....	Mil. cases.....	(D)	(Z)	0.6	4.4
20371 95	Other frozen fruit and berry juices, concentrated.....	do.....	10.2	39.0	10.9	42.6
20371 00	Other frozen fruits, juices, and ades, n.s.k.....		(X)	<sup>2</sup> 27.2	(X)	18.1
20372 --	Frozen vegetables.....	Million lbs.....	(X)	583.5	(X)	396.0
20372 11	Asparagus.....	do.....	28.2	14.8	27.0	11.3
20372 15	Beans, green and wax.....	do.....	243.8	49.3	194.9	38.8
20372 21	Beans, fresh lima.....	do.....	159.4	31.5	123.2	22.2
20372 25	Broccoli.....	do.....	153.9	35.4	136.4	27.5
20372 31	Brussels sprouts.....	do.....	36.7	12.0	46.7	13.0
20372 33	Carrots.....	do.....	94.3	9.6	( <sup>2</sup> )	( <sup>2</sup> )
20372 35	Cauliflower.....	do.....	45.6	11.6	38.2	8.2
20372 41	Green peas.....	do.....	414.8	56.6	317.9	50.1
20372 42	Spinach.....	do.....	157.3	18.1	109.6	14.0
20372 43	Succotash.....	do.....	(D)	( <sup>3</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
20372 44	Peas and carrots.....	do.....	30.3	4.6	( <sup>2</sup> )	( <sup>2</sup> )
20372 46	Other vegetable combinations (mixed vegetables, peas and onions, etc.).....	do.....	108.3	22.1	( <sup>2</sup> )	( <sup>2</sup> )
20372 47	Potatoes and potato products (french fried, patties, puffs, etc.).....	do.....	1,507.6	186.2	906.9	108.0
20372 51	Sweet corn, cut.....	do.....	330.1	56.7	169.6	25.8
20372 98	Other frozen vegetables.....	do.....	392.7	61.9	<sup>2</sup> 586.2	<sup>2</sup> 75.0
20372 00	Frozen vegetables, n.s.k.....	do.....	(X)	<sup>3</sup> 13.1	13.1	2.0
20373 --	Frozen specialties.....	do.....	2,363.0	883.0	1,697.1	608.1
20373 11	Frozen pies (fruit and custard).....	do.....	403.3	101.7	401.1	84.9
20373 15	Other frozen baked goods (waffles, cookies, cakes, pastries, etc.) excluding bread and rolls.....	do.....	224.0	107.4	281.9	93.4
20373 25	Frozen dinners.....	do.....	397.9	217.3	274.0	133.5
20373 31	Frozen beef and pork pies.....	do.....	125.4	44.4	290.1	121.6
20373 35	Frozen poultry pies.....	do.....	191.9	44.6		
20373 44	Frozen nationality foods (Chinese, Mexican, Italian, etc.)....	do.....	318.3	123.9		
20373 98	Other frozen specialties, except seafood, including soups, etc.....	do.....	548.0	185.1	394.0	154.4
20373 00	Frozen prepared foods and soups, n.s.k.....	do.....	<sup>4</sup> 154.2	58.6		
20370 00	Frozen fruits, fruit juices, vegetables and specialties, n.s.k.. (For companies with 10 or more employees. See Note.).....		(X)	124.3	(X)	20.5
20370 02	Frozen fruits, fruit juices, vegetables, and specialties, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	7.9		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

(Z) Less than 0.1 when rounded.

<sup>1</sup>Product code 20371 93 included with product code 20371 00.

<sup>2</sup>In 1963, codes 20372 33, 20372 43, 20372 44, 20372 46 were not collected separately, but were included in 20372 98, other frozen vegetables.

<sup>3</sup>Product code 20372 43 included with product code 20372 00.

<sup>4</sup>Quantity estimated based on unit-value relationships for other products in the product class.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2037.--FROZEN FRUITS AND VEGETABLES					
	Materials, ingredients, containers, and supplies consumed, total.....		(X)	1,207.8	(X)	917.7
	Fresh fruit:					
012231	Oranges.....	1,000 short tons..	3,287.3	114.7	1,783.2	146.1
012211	Apples.....	..do.....	105.2	7.3	112.1	6.5
012221	Apricots.....	..do.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
012241	Grapes.....	..do.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
012261	Peaches.....	..do.....	26.8	3.4	34.5	2.9
012271	Pears.....	..do.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
012273	Pineapples.....	..do.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
012281	Strawberries.....	..do.....	69.2	20.8	83.1	19.9
012291	Other fresh fruits.....	..do.....	(X)	39.5	(X)	38.2
	Fresh vegetables:					
012351	Cucumbers.....	..do.....	(X)	(X)	(X)	(X)
012311	Green peas.....	..do.....	221.4	25.4	201.0	21.4
011951	Irish potatoes.....	..do.....	1,452.4	45.4	1,015.4	29.4
012341	Tomatoes.....	..do.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
012331	Sweet corn.....	..do.....	659.7	20.5	331.5	9.0
012321	Snap or wax beans.....	..do.....	137.7	16.2	106.1	13.0
012391	Other fresh vegetables.....	..do.....	(X)	78.0	(X)	58.7
	Other materials, ingredients, containers, and supplies:					
203413	Dried beans.....	..do.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
206011	Sugar (cane and beet).....	1,000 cwt.....	2,933.4	29.0	2,408.5	24.4
209006	Fats and oils, all types.....	Million lbs.....	217.6	31.4	135.2	18.0
203411	Dried fruit.....	1,000 short tons..	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
201013	Fresh and prepared meats, other than poultry.....	Million lbs.....	233.8	102.3	135.7	53.9
204110	Wheat flour.....	1,000 cwt.....	2,539.0	15.6	2,877.6	16.1
201501	Dressed poultry.....	Million lbs.....	167.7	53.1	101.7	30.7
203348	Concentrated fruit juices.....	Million gals.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
	Containers:					
265011	Paperboard containers.....	.....	(X)	115.1	(X)	89.7
341101	Metal cans.....	.....	(X)	62.2	(X)	50.6
322101	Glass containers.....	.....	(X)	( <sup>1</sup> )	(X)	1.8
970099	All other materials, ingredients, containers, and supplies, consumed.....	.....	(X)	331.2	(X)	247.0
976000	Materials, n.s.k.....	.....	(X)	96.7	(X)	40.4

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Included in material code 970099, all other materials.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2037, these small establishments accounted for approximately 0 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS





# 1967 CENSUS OF MANUFACTURES

MC67(P)-20D-1

## INDUSTRY SERIES

### Grain mill products and blended and prepared flour

SIC Codes 2041 and 2045

preliminary  
report

The Flour and Other Grain Mill Products (SIC 2041) includes establishments primarily engaged in milling flour or meal from grain, except rice (industry 2044). The products of flour mills may be sold plain or in the form of prepared mixes for specific purposes.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Flour and Other Grain Mill Products amounted to \$2,447.2 million, an increase of 12 percent compared with 1963. Value added by manufacture at \$485.7 million in 1967 was 30

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)		(1,000)		(1,000)									
	INDUSTRY 2041.--FLOUR AND OTHER GRAIN MILL PRODUCTS													
1967 Census....	<sup>3</sup> 541	212	20.3	142.3	14.7	33.0	95.1	485.7	1,961.4	2,447.2	26.2	191.7	94	78
1966 ASM <sup>1</sup> .....	(NA)	(NA)	20.1	133.8	14.7	33.3	90.6	433.9	1,914.9	2,344.9	36.0	204.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	20.7	133.2	15.1	34.2	90.7	405.8	1,739.4	2,145.5	21.9	190.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	21.9	138.5	16.0	36.9	93.3	399.8	1,791.3	2,193.1	21.2	182.4	(NA)	(NA)
1963 Census....	618	218	22.4	137.7	16.4	38.4	94.9	373.1	1,804.0	2,176.5	23.5	232.2	94	78
1962 ASM <sup>1</sup> .....	(NA)	(NA)	25.7	149.5	18.9	43.8	100.0	441.3	1,929.4	2,369.4	25.7	262.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	26.6	151.8	19.4	44.4	100.7	447.1	1,891.9	2,331.4	24.1	253.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	27.2	144.9	19.5	44.8	97.0	444.4	1,800.5	2,240.3	28.5	218.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	28.5	144.0	20.8	46.5	98.0	410.9	1,758.8	2,166.3	31.1	214.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	814	250	28.2	140.1	20.5	44.1	96.2	393.1	1,693.8	2,086.7	22.1	210.5	93	85
	INDUSTRY 2045.--BLENDED AND PREPARED FLOUR													
1967 Census <sup>4</sup> ...	<sup>3</sup> 147	55	7.1	51.6	5.1	10.7	32.7	200.2	290.1	490.9	9.4	33.7	84	60
1966 ASM <sup>5</sup> .....	(NA)	(NA)	7.3	51.4	5.1	10.4	31.7	205.7	298.3	502.9	8.9	35.8	(NA)	(NA)
1965 ASM <sup>5</sup> .....	(NA)	(NA)	7.2	49.7	5.0	10.4	30.8	205.4	284.6	488.8	9.8	38.2	(NA)	(NA)
1964 ASM <sup>5</sup> .....	(NA)	(NA)	7.6	48.8	4.9	10.3	28.2	214.9	291.3	509.5	*8.7	33.8	(NA)	(NA)
1963 Census (new) <sup>6</sup> .....	165	60	7.2	45.4	5.1	10.7	27.4	177.8	255.7	434.0	6.1	33.5	78	62
1963 Census (old) <sup>6</sup> .....	144	43	5.4	35.7	3.7	7.7	20.2	141.0	191.6	333.2	4.8	(NA)	(NA)	(NA)
1962 ASM <sup>5</sup> .....	(NA)	(NA)	4.6	29.7	3.2	6.6	17.6	122.7	152.0	273.8	4.0	23.8	(NA)	(NA)
1961 ASM <sup>5</sup> .....	(NA)	(NA)	5.4	34.7	4.1	8.1	21.4	145.7	178.2	324.7	3.9	81.3	(NA)	(NA)
1960 ASM <sup>5</sup> .....	(NA)	(NA)	5.4	34.1	4.0	8.3	21.2	142.0	176.4	327.9	7.7	(S)	(NA)	(NA)
1959 ASM <sup>5</sup> .....	(NA)	(NA)	5.3	32.0	3.9	8.0	19.3	110.7	169.6	279.9	5.0	(S)	(NA)	(NA)
1958 Census <sup>2</sup> ...	117	30	4.9	28.4	3.6	7.5	17.7	118.1	164.2	279.4	8.6	67.4	68	50

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

<sup>4</sup>The data for 1967 excludes establishments producing self-rising, phosphated, and bromated flour which is now classified in industry 2041. However, for 1963, data were included.

<sup>5</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 2, respectively.

<sup>6</sup>The data for 1963 (new) includes establishments primarily producing refrigerated doughs from purchased flour. Data for 1963 (old) and earlier years exclude such establishments.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

percent more than value added in 1963. Average employment in the industry showed a decrease of 9 percent from 1963 to a total of 20.3 thousand employees in 1967.

Of the \$2,447.2 million total value of shipments and other receipts of establishments classified as flour and other grain mills, \$134.2 million were products primary to other industries; and \$116.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

The total value of flour and other grain mill products shipped by all producers in 1967 was \$2,817.9 million of which \$2,196.4 million, or 78 percent, were shipped by plants classified in industry 2041, Flour and Other Grain Mill Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 78 percent in 1963.

The Blended and Prepared Flour (SIC 2045) Industry includes establishments primarily engaged in the preparation of blended flours and flour mixes from purchased flour.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Blended and Prepared Flour Industry

amounted to \$490.9 million, an increase of 13 percent compared with 1963. Value added by manufacture at \$200.2 million in 1967 was 12 percent more than value added in 1963. Average employment in the industry showed a decrease of 1 percent from 1963 to a total of 7.1 thousand employees in 1967.

Of the \$490.9 million total value of shipments and other receipts of establishments classified as blended and prepared flour manufactures, \$70.6 million were products primary to other industries; and \$34.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 78 percent in 1963.

The total value of blended and prepared flour shipped by all producers in 1967 was \$646.4 million of which \$385.5 million, or 60 percent, were shipped by plants classified in industry 2045, blended and prepared flour, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 62 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2041, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

##### M20A, Flour Milling Products.

The annual summary in this series includes data for wheat ground, wheat flour and millfeed production, and flour mill capacity and stocks. Similar data are collected for rye and semi-annual data in less detail for durum wheat.

Figures for the comparable products may differ slightly between the current survey and the census of manufactures. This is partially because the current survey data are based on a sample of flour mills, while all such establishments are included in the census of manufactures. (See text for further discussion). The remainder of the discrepancy is caused by some companies reporting in the census of manufactures on a fiscal year basis, while their current survey reports are filed monthly and cumulated to a calendar year's total.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2041.--FLOUR AND OTHER GRAIN MILL PRODUCTS													
United States, total.....	541	212	20.3	142.3	14.7	33.0	95.1	485.7	1,961.4	2,447.2	26.2	22.4	373.1
Northeast.....	74	18	2.0	15.4	1.5	3.5	11.6	47.8	229.7	277.7	3.2	2.3	41.5
New York.....	22	9	1.4	11.9	1.1	2.5	9.0	39.6	187.9	228.0	(D)	1.9	35.2
East North Central...	88	41	5.0	37.9	3.6	8.1	25.0	129.6	457.9	587.1	6.5	4.8	89.5
Ohio.....	23	7	0.5	3.7	0.4	0.8	2.6	14.0	78.0	92.0	0.3	0.5	7.0
Indiana.....	17	8	1.1	7.7	0.7	1.7	4.8	34.1	95.8	129.7	(D)	0.9	20.2
Illinois.....	23	12	2.1	16.6	1.6	3.5	11.5	50.2	181.4	231.0	3.2	2.3	40.6
West North Central...	82	61	5.4	39.6	3.9	9.2	27.3	151.2	683.2	833.3	5.6	6.7	126.7
Kansas.....	31	24	1.7	11.7	1.3	3.0	8.3	41.0	218.6	259.6	1.5	2.3	44.3
South.....	239	50	4.9	28.3	3.5	7.7	17.0	80.6	328.9	410.6	4.8	5.3	60.1
South Atlantic.....	133	20	1.5	8.3	1.0	2.3	4.3	16.2	68.0	84.0	1.1	1.6	13.3
Mountain.....	28	15	1.0	6.9	0.8	1.7	4.8	25.8	89.2	115.2	(D)	1.1	22.5
Montana.....	4	4	0.2	1.2	0.1	0.3	1.0	5.6	15.8	21.5	(D)	0.2	3.0
Pacific.....	30	17	1.9	14.2	1.4	2.8	9.5	50.7	172.4	223.4	(D)	2.1	32.8
California.....	15	8	0.7	5.8	0.5	1.0	3.3	28.4	79.0	107.5	1.1	0.9	17.1
INDUSTRY 2045.--BLENDED AND PREPARED FLOUR													
United States, total.....	147	55	7.1	51.6	5.1	10.7	32.7	200.2	290.1	490.9	9.4	7.2	177.8
Northeast.....	25	9	1.3	10.3	0.9	1.9	5.8	31.3	46.4	78.0	2.1	1.6	32.4
North Central.....	55	20	3.0	22.4	2.2	4.7	14.6	83.9	130.4	213.9	4.0	3.0	80.7
Illinois.....	16	9	1.1	7.6	0.7	1.5	4.0	20.8	41.2	62.0	1.2	0.7	10.5
South.....	32	11	1.3	8.1	1.1	2.1	5.4	25.5	47.9	74.5	1.0	1.5	29.5
West South Central...	14	5	0.8	4.8	0.7	1.3	3.3	12.3	25.8	38.2	(D)	(D)	(D)
West.....	35	15	1.4	10.7	1.0	2.1	7.1	59.5	65.6	124.5	2.2	1.0	35.2
Washington.....	8	3	0.2	1.2	0.1	0.3	0.7	3.2	7.0	10.2	0.1	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2041- -- 2045- --	FLOUR MILL AND BLENDED AND PREPARED FLOUR PRODUCTS, TOTAL....	.....	(X)	2,817.9	(X)	2,481.6
	Flour and other grain mill products, total.....	.....	(X)	<sup>1</sup> 2,171.5	(X)	<sup>1</sup> 1,976.5
20411 --	Wheat flour, except flour mixes.....	1,000 sacks (cwt.).....	245,624	1,556.8	267,530	1,511.7
	White:					
	Shipped for export:					
20411 05	Commercial dollar exports, all white flour types.....	...do.....	18,337	108.7		
20411 07	All other exports of white flour such as those under Public Law 480.....	...do.....	6,100	35.4		
	Domestic shipments:					
	Baker's and institutional white bread-type flour:					
20411 11	Shipped in bulk cars or trucks.....	...do.....	76,608	451.7		
20411 13	Shipped in containers, including tote bins.....	...do.....	35,171	216.7		
	Baker's and institutional soft wheat flour, including commercial bakery, restaurant, hospital, etc:					
20411 15	Shipped in bulk cars or trucks.....	...do.....	19,957	116.6		
20411 17	Shipped in containers, including tote bins.....	...do.....	9,874	58.9		
	Family white flour:					
	All family flour other than self-rising, such as phosphated, plain, bromated, enriched and all-purpose, including all-purpose purchased by the U.S. Government for domestic donation:				251,023	1,419.8
20411 21	Shipped in containers of less than 25 pounds.....	...do.....	19,729	168.5		
20411 23	Shipped in containers of 25 pounds or more.....	...do.....	7,585	60.1		
	Self-rising flour:					
20411 24	Shipped in containers of less than 25 pounds.....	...do.....	3,871	33.0		
20411 25	Shipped in containers of 25 pounds or more.....	...do.....	2,561	20.6		
	Flour shipped to blenders or other processors (for further processing and/or packing before resale or shipment):					
20411 26	For blending, use in mixes, refrigerated doughs, etc...	...do.....	<sup>1</sup> 16,410	99.6		
20411 27	For processing into other food products such as soups, etc.....	...do.....	537	3.0		
20411 28	For use in nonfood products (pet food, industrial, etc.)...	...do.....	953	4.2		
	Other than white:					
20411 31	Whole wheat.....	...do.....	1,856	10.8	2,154	11.0
20411 51	Durum flour and semolina.....	...do.....	12,622	84.6	10,936	62.5
20411 61	Bulgur.....	...do.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
20411 98	Other wheat flour, including farina.....	...do.....	<sup>2</sup> 5,307	<sup>2</sup> 33.1	1,581	8.1
20411 00	Wheat flour, except flour mixes, n.s.k.....	...do.....	8,146	50.3	1,836	10.3
20412 --	Wheat mill products other than flour:					
20412 13	Wheat mill feed.....	1,000 short tons.....	4,259	201.8		
20412 17	Wheat germ.....	...do.....	<sup>5</sup> 6	3.0	4,823	199.5
20413 --	Corn mill products.....	.....	(X)	<sup>4</sup> 261.8	(X)	<sup>4</sup> 193.0
	Corn products for human consumption:					
20413 11	Whole cornmeal.....	Thousand sacks (cwt.).....	6,543	36.1	5,042	22.8
20413 15	Degermed cornmeal.....	...do.....	9,867	49.9	7,529	33.8
20413 21	Corn grits and hominy except for brewer's use.....	...do.....	7,454	40.0	12,807	48.0
20413 23	Corn grits and flakes for brewer's use.....	...do.....	13,028	53.1	10,813	38.5
20413 51	Cornmeal for animal feed.....	...do.....	5,700	16.0	4,281	11.8
20413 61	Hominy feed and other byproducts of dry corn milling (for animal feed).....	1,000 short tons.....	<sup>5</sup> 18	42.2	698	31.4
20413 98	Other corn mill products (corn flour, etc.).....	Thousand sacks (cwt.).....	4,003	23.6	( <sup>3</sup> )	( <sup>3</sup> )
20413 00	Corn mill products, n.s.k.....	...do.....	(X)	0.9	1,652	6.7
20416 --	Other grain mill products, n.e.c.....	.....	(X)	<sup>4</sup> 43.4	(X)	<sup>4</sup> 46.0
20416 11	Rye flour.....	Thousand sacks (cwt.).....	2,403	9.5	2,055	8.1
20416 23	Other flour (excluding wheat, corn, rye).....	...do.....	3,577	17.5	( <sup>3</sup> )	( <sup>3</sup> )
20416 27	Other mill feed (oats, rye, buckwheat, etc.).....	1,000 short tons.....	189	3.9	( <sup>3</sup> )	( <sup>3</sup> )
20416 00	Other grain mill products, n.s.k.....	...do.....	(X)	12.5	(X)	<sup>5</sup> 37.9
20410 00	Flour and meal, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	84.4		
20410 02	Flour and meal, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	20.3	(X)	26.3

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2041- -- 2045- --	FLOUR AND OTHER GRAIN MILL PRODUCTS AND BLENDED AND PREPARED FLOUR PRODUCTS--Continued					
	Blended and prepared flour, including refrigerated doughs.....		(X)	646.4	(X)	505.1
20415 -- 20455 --	Made chiefly from flour milled in same establishment.....		(X)	<sup>1</sup> 148.6	(X)	<sup>1</sup> 115.0
	Made chiefly from purchased flour.....		(X)	497.8	(X)	390.1
	Flour mixes:					
	Pancake and waffle mixes:					
20415 51 20455 51	Shipped in containers of less than 5 pounds.....	Thousand sacks (cwt.).....	1,768	30.3	2,191	29.1
20415 52 20455 52	Shipped in containers of 5 pounds or more.....	...do.....	1,226	18.8	877	14.5
	Cake mixes, including gingerbread:					
20415 53 20455 53	Shipped in containers of less than 5 pounds.....	...do.....	6,895	177.4	<sup>r</sup> 5,830	<sup>r</sup> 140.7
20415 54 20455 54	Shipped in containers of 5 pounds or more.....	...do.....	1,741	36.1	<sup>r</sup> 847	<sup>r</sup> 17.9
	Biscuit mixes:					
20415 56 20455 56	Shipped in containers of less than 5 pounds.....	...do.....	945	16.3	<sup>r</sup> 1,150	<sup>r</sup> 19.7
20415 57 20455 57	Shipped in containers of 5 pounds or more.....	...do.....	176	3.4	<sup>r</sup> 165	<sup>r</sup> 2.9
	Pie crust mixes:					
20415 58 20455 58	Shipped in containers of less than 5 pounds.....	...do.....	283	7.3	323	7.6
20415 59 20455 59	Shipped in containers of 5 pounds or more.....	...do.....	( <sup>6</sup> )	( <sup>6</sup> )	87	1.6
	Cookie mixes, doughnut mixes and other sweet yeast goods mixes:					
20415 61 20455 61	Shipped in containers of less than 5 pounds.....	...do.....	1,521	26.8	1,480	25.5
20415 62 20455 62	Shipped in containers of 5 pounds or more.....	...do.....	4,741	69.2	4,188	62.8
	Bread and bread-type roll mixes:					
20415 66 20455 66	Shipped in containers of less than 5 pounds.....	...do.....	1,348	21.9	270	5.2
20415 67 20455 67	Shipped in containers of 5 pounds or more.....	...do.....	( <sup>7</sup> )	( <sup>7</sup> )	482	5.8
	Other prepared flour mixes:					
20415 68 20455 68	Shipped in containers of less than 5 pounds.....	...do.....	2,669	54.8	1,847	35.5
20415 69 20455 69	Shipped in containers of 5 pounds or more.....	...do.....	835	12.8	766	13.0
	Refrigerated doughs:					
20415 71 20455 71	Biscuit dough.....	Million lbs. net weight...	528.1	71.7	354.3	61.7
20415 73 20455 73	Cookie dough.....	...do.....	( <sup>8</sup> )	( <sup>8</sup> )	( <sup>8</sup> )	( <sup>8</sup> )
20415 75 20455 75	Bread and bread-type rolls, including dinner, danish.....	...do.....	333.5	46.2	222.5	33.2
20415 79 20455 79	Other refrigerated doughs, including pizza, coffee cake, etc.	...do.....	73.6	23.3	51.1	11.6
20415 00 20455 00	Blended and prepared flour, n.s.k. (For companies with more than 10 employees. See Note.).....		(X)	27.2	(X)	16.8
20455 02	Blended and prepared flour, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	2.9		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

Footnotes continued on next page.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

## FOOTNOTES FOR TABLE 3-20D--Continued

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. <sup>r</sup>Revised. (X) Not applicable.

<sup>1</sup>The product classes 20411 and 20455 were revised to include all phosphated and self-rising flour in 20411. For 1963 292 thousand sacks valued at \$2.8 million of phosphated flour and 1,650 thousand sacks valued at \$18.0 million of self-rising flour were shifted from 20455 to 20411.

<sup>2</sup>Data for product code 20411 61 are included with product code 20411 98 to avoid disclosing figures for individual companies.

<sup>3</sup>Separate data for this product description were not requested prior to 1967.

<sup>4</sup>The product classes 20413 and 20416 were revised to include all dry corn mill products in 20413. The following products were transferred from 20416 for 1963: 12,807 thousand sacks (cwt.) valued at \$48.0 million of corn grits and hominy except for brewer's use, 10,813 thousand sacks (cwt.) valued at \$38.5 million of corn grits and flakes for brewer's use, and 698 thousand short tons valued at \$31.4 million of hominy feed and other dry corn milling byproducts.

<sup>5</sup>Includes 182 thousand short tons valued at \$8.5 million of oat millfeed and other oat byproducts which was collected separately in 1963.

<sup>6</sup>Data for product codes 20415 59 and 20455 59 are combined with 20415 58 and 20455 58 to avoid disclosing figures for individual companies.

<sup>7</sup>Data for product codes 20415 67 and 20455 67 are combined with 20415 66 and 20455 66 to avoid disclosing figures for individual companies.

<sup>8</sup>Data for product codes 20415 73 and 20455 73 are included with product codes 20415 79 and 20455 79 to avoid disclosing figures for individual companies.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
INDUSTRY 2041.--FLOUR AND OTHER GRAIN MILL PRODUCTS						
	Materials, ingredients, containers, and supplies, total.....		(X)	1,846.5	(X)	1,690.4
011371	Wheat.....	Million bushels...	530.4	1,326.6	583.1	1,312.8
011321	Corn.....	..do.....	92.7	130.4	85.6	111.4
011331	Oats.....	..do.....	19.4	18.4	13.5	10.2
011311	Barley.....	..do.....	2.8	3.3	3.3	3.6
011361	Sorghum grain.....	..do.....	5.7	6.9	6.4	7.0
204110	Wheat flour.....	1,000 cwt.....	6,840.8	38.0	3,479.3	18.5
206011	Sugar (cane and beet) in terms of sugar solids.....	..do.....	2,260.1	22.5	1,541.5	14.5
209003	Fats and oils for use in flour and prepared flour mixes (purchased as such).....	Million lbs.....	107.0	11.3	46.3	5.6
229921	Burlap bags, new.....	Million bags.....	21.7	4.3	34.7	6.3
239301	Cotton bags.....	.....	(X)	12.9	(X)	14.7
264338	Paper shipping sacks.....	.....	(X)	27.2	(X)	25.8
265013	Paperboard, folding and corrugated boxes.....	.....	(X)	15.8	(X)	10.7
970099	All other materials, containers, and supplies consumed.....	.....	(X)	152.9	(X)	115.3
976000	Materials, ingredients, containers, and supplies, n.s.k <sup>1</sup> .....	.....	(X)	76.0	(X)	34.0
INDUSTRY 2045.--BLENDED AND PREPARED FLOUR						
	Materials, ingredients, containers, and supplies, total.....		(X)	262.7	(X)	238.7
011321	Corn.....	Million bu.....	(Z)	(Z)	1.4	1.9
011371	Wheat.....	..do.....	(Z)	1.8	1.5	2.9
204110	Wheat flour.....	1,000 cwt.....	12,013.2	72.8	10,974.5	64.6
206011	Sugar (cane and beet).....	..do.....	3,230.4	32.0	4,221.9	42.4
209003	Fats and oils for use in flour and prepared flour mixes (purchased as such).....	Million lbs.....	130.4	18.7	83.0	10.8
264338	Paper shipping sacks.....	.....	(X)	1.8	(X)	1.2
265013	Paperboard, folding and corrugated boxes.....	.....	(X)	15.6	(X)	18.2
340001	Metal containers.....	.....	(X)	2.3	(X)	2.2
970099	All other materials, ingredients, containers, and supplies consumed.....	.....	(X)	110.3	}	(X)
976000	Materials, ingredients, containers, and supplies, n.s.k <sup>1</sup> .....	.....	(X)	7.3		

n.s.k. Not specified by kind. (X) Not applicable. (Z) Less than 0.1 when rounded.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In both industry 2041, and industry 2045, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials were imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "allemployee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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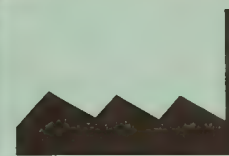
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20D-2

## INDUSTRY SERIES

### Prepared feeds for animals and fowls

SIC Code 2042

**preliminary  
report**

The Prepared Feeds for Animals and Fowls Industry includes establishments primarily engaged in manufacturing prepared feeds for animals and fowls. Prepared feeds include poultry feed, livestock feed, dog food and other pet foods (canned, frozen, and dry). This industry also includes establishments primarily engaged in manufacturing certain feed ingredients and adjuncts, such as alfalfa meal, feed supplements, and feed concentrates.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Prepared Feeds for Animals and Fowls Industry amounted to \$4,827.4 million, an increase of 24.4 percent compared with 1963. Value added by manufacture at \$1,245.4 million in 1967 was 26.6 percent more than value added in 1963. Average employment in the industry showed a decrease of 2.6 percent from 1963 to a total of 53.2 thousand employees in 1967.

Of the \$4,827.4 million total value of shipments and other receipts of establishments classified as manufacturers of prepared feeds, \$93.3 million were products primary to other industries; and \$377.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the speciali-

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total  (number)	With 20 employees or more (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)							
	INDUSTRY 2042. --PREPARED FEEDS FOR ANIMALS AND FOWLS													
1967 Census....	3,364	726	53.2	326.9	34.4	75.4	187.8	1,245.4	3,592.0	4,827.4	75.8	266.2	98	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	51.4	298.4	32.0	71.5	164.5	1,031.9	3,411.7	4,438.4	62.1	256.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	51.2	281.9	32.1	71.8	158.2	971.6	3,015.9	3,987.1	66.3	231.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	52.8	281.7	33.6	74.3	159.5	978.1	2,892.7	3,869.6	50.4	227.6	(NA)	(NA)
1963 Census....	2,590	711	54.6	278.7	34.6	75.7	159.1	983.7	2,903.6	3,880.1	53.4	231.4	96	93
1962 ASM <sup>1</sup> .....	(NA)	(NA)	56.2	279.9	36.4	79.5	159.2	881.4	2,772.9	3,652.2	56.7	199.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	55.8	271.2	36.4	80.4	157.1	861.4	2,611.1	3,478.4	44.7	187.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	56.4	263.2	36.9	80.1	152.7	807.7	2,446.0	3,262.4	49.6	187.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	56.9	256.1	37.3	80.6	150.7	804.0	2,465.9	3,265.0	56.3	209.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	2,379	715	57.3	252.3	38.0	81.4	151.8	798.9	2,444.8	3,238.4	55.0	192.0	97	91

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

zation ratio for the industry, was 96 percent in 1963.

The total value of prepared feeds shipped by all producers in 1967 was \$4,546.9 million of which \$4,300.6 million, or 95 percent, were shipped by plants classified in industry 2042, Prepared Feeds for Animals and Fowls, while the remainder was shipped by plants classified

in other industries. This percent, called the coverage ratio, was 93 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2042, --PREPARED FEEDS FOR ANIMALS AND FOWLS												
United States, total.....	2,364	726	53.2	326.9	34.4	75.4	187.8	1,245.4	3,592.0	4,827.4	75.8	54.6	983.7
New England.....	59	21	1.4	9.9	1.0	2.2	5.6	42.5	142.2	182.9	3.0	1.5	27.2
New Hampshire.....	5	4	0.1	0.7	0.1	0.2	0.4	1.8	11.3	13.0	(D)	0.1	1.5
Massachusetts.....	18	5	0.5	3.3	0.4	0.8	2.0	17.4	33.3	49.4	0.7	0.5	8.7
Middle Atlantic.....	212	59	5.0	32.5	3.5	7.3	19.6	96.3	290.2	386.4	9.5	5.8	94.0
New York.....	65	19	2.1	13.7	1.6	3.2	9.3	38.1	118.2	156.0	(D)	3.1	50.5
New Jersey.....	25	9	0.7	4.7	0.4	0.9	2.1	13.6	39.7	53.1	(D)	0.6	10.9
Pennsylvania.....	122	31	2.2	14.1	1.5	3.2	8.2	44.6	132.3	177.4	5.1	2.1	32.6
East North Central....	349	122	10.7	72.7	7.4	15.8	46.1	355.5	639.3	995.0	16.5	9.8	250.4
Ohio.....	77	22	2.0	12.8	1.4	3.1	8.1	64.5	129.3	193.3	4.0	2.2	53.4
Indiana.....	66	25	1.8	11.8	1.2	2.4	7.3	35.6	98.9	134.7	2.5	1.9	36.3
Illinois.....	107	50	5.1	35.6	3.6	7.5	22.9	184.4	307.1	492.1	7.6	4.1	129.2
West North Central....	564	166	12.0	76.4	7.2	16.3	39.6	263.0	676.4	936.0	16.6	11.9	190.5
Minnesota.....	MM	22	1.7	11.4	1.0	2.2	5.7	40.9	112.9	152.5	2.3	1.6	29.0
Iowa.....	151	60	4.0	27.4	2.0	4.5	12.0	98.1	216.8	314.0	4.7	4.0	70.9
Missouri.....	77	25	2.1	11.7	1.4	2.9	6.7	35.4	139.9	175.0	1.8	2.3	24.6
South Atlantic.....	339	99	6.3	33.4	3.8	8.3	17.2	125.4	600.5	724.9	6.4	7.3	118.2
Virginia.....	39	11	0.7	3.1	0.4	0.9	1.8	12.8	48.7	61.5	(D)	0.8	13.1
North Carolina.....	111	26	2.0	9.1	1.2	2.7	5.2	32.0	168.3	199.8	1.7	2.2	34.3
South Carolina.....	28	8	0.4	1.9	0.2	0.4	0.7	4.7	17.4	22.1	(D)	0.7	7.1
Georgia.....	94	25	1.5	8.4	1.0	2.0	4.2	33.4	202.0	235.2	2.0	1.8	32.0
East South Central....	191	61	4.7	26.0	3.1	6.8	15.2	104.1	350.8	453.8	6.7	5.1	86.5
Kentucky.....	24	6	0.3	1.9	0.2	0.5	1.2	8.0	28.8	36.9	(D)	0.5	5.9
Alabama.....	63	16	1.7	10.1	1.0	2.1	5.2	37.5	131.7	169.9	1.6	1.8	32.6
West South Central....	277	99	6.2	31.2	3.9	8.8	17.3	108.5	421.4	528.8	9.8	6.1	84.1
Arkansas.....	51	20	1.3	5.8	0.8	1.7	3.0	30.4	153.2	182.3	3.2	1.1	20.7
Louisiana.....	21	10	0.5	2.3	0.3	0.7	1.4	9.6	29.4	38.6	2.1	0.6	5.6
Oklahoma.....	39	15	0.9	5.1	0.6	1.4	2.9	18.7	48.5	67.1	1.0	0.8	13.0
Texas.....	166	54	3.6	18.0	2.2	5.0	10.0	49.8	190.3	240.8	3.5	3.6	44.8
Mountain.....	134	28	2.1	12.0	1.5	3.4	7.4	36.1	104.8	140.4	2.5	2.1	28.9
Idaho.....	19	5	0.2	1.3	0.1	0.3	0.6	3.6	12.2	15.7	0.3	0.2	3.1
New Mexico.....	11	5	0.2	1.0	0.1	0.3	0.6	2.1	10.7	12.8	(D)	(D)	(D)
Pacific.....	239	71	4.8	33.7	3.0	6.5	19.8	114.0	366.4	479.2	4.8	5.0	104.0
Oregon.....	34	8	0.7	4.4	0.4	0.9	2.7	14.9	38.1	52.9	(D)	0.7	13.3
California.....	164	54	3.5	25.7	2.2	4.9	14.7	85.4	281.2	365.3	3.1	24.6	76.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2042- --	PREPARED FEEDS, TOTAL.....	1,000 short tons.....	(X)	4,546.9	(X)	3,677.4
20421 --	Poultry feeds, including supplements.....	..do.....	19,118	1,569.8	17,709	1,445.0
	Complete poultry feeds.....	..do.....	15,319	1,220.2	14,463	1,129.1
20421 21	Starter-grower.....	..do.....	2,134	170.0	14,463	1,129.1
20421 22	Layer-breeder.....	..do.....	5,564	420.1		
20421 28	Broiler.....	..do.....	5,660	472.6		
20421 33	Turkey.....	..do.....	1,808	145.2		
20421 39	Other (duck, etc.).....	..do.....	153	12.3		
	Poultry feed supplements and concentrates.....	..do.....	1,924	195.7	2,772	277.2
20421 51	Starter-grower.....	..do.....	268	26.2	2,772	277.2
20421 53	Layer-breeder.....	..do.....	1,057	106.6		
20421 55	Broiler.....	..do.....	234	24.6		
20421 56	Turkey.....	..do.....	333	35.3		
20421 59	Other (duck, etc.).....	..do.....	32	3.0		
20421 00	Poultry feeds, n.s.k.....	..do.....	1,875	153.9	474	38.7
20422 --	Livestock feeds, including supplements.....	..do.....	20,057	1,699.6	17,002	1,388.4
	Complete livestock feeds.....	..do.....	11,496	850.8	9,775	694.6
20422 13	Dairy.....	..do.....	5,483	385.4	9,775	694.6
20422 15	Swine.....	..do.....	2,589	220.5		
20422 17	Beef.....	..do.....	2,435	168.1		
20422 23	Horse and mule.....	..do.....	689	54.2		
20422 29	Other (sheep, mineral, etc.).....	..do.....	300	22.6		
	Livestock feed supplements and concentrates.....	..do.....	6,540	677.5	6,647	646.4
20422 43	Dairy.....	..do.....	1,303	117.9	6,647	646.4
20422 45	Swine.....	..do.....	3,004	343.9		
20422 47	Beef.....	..do.....	1,939	180.0		
20422 53	Horse and mule.....	..do.....	87	8.4		
20422 59	Other (sheep, mineral, etc.).....	..do.....	207	27.4		
20422 00	Livestock feeds, n.s.k.....	..do.....	12,021	171.2	1580	47.4
20423 --	Dog and cat food.....	Million lbs....	25,543.1	2705.5	4,504.2	441.9
	Dog:				4,440.6	435.7
	Canned:					
20423 21	Ration type.....	..do.....	1,516.7	160.2		
20423 23	Other.....	..do.....	384.1	77.9		
	Dry:					
20423 25	Shipped in packages of under 25 pounds.....	..do.....	972.6	113.7	163.6	6.2
20423 27	Shipped in packages of 25 pounds or over.....	..do.....	1,157.7	106.7		
	Semimoist:					
20423 31	Shipped in packages of 1 pound or less.....	..do.....	(2)	(2)		
20423 33	Shipped in packages of more than 1 pound.....	..do.....	(2)	(2)		
	Cat:				163.6	6.2
	Canned:					
20423 41	Fish base.....	..do.....	294.9	41.9		
20423 43	Meat base.....	..do.....	244.5	44.1		
	Dry:					
20423 53	Shipped in packages of under 25 pounds.....	..do.....	(2)	(2)	163.6	6.2
20423 55	Shipped in packages of 25 pounds or over.....	..do.....	(2)	(2)		
	Semimoist:					
20423 56	Shipped in packages of 1 pound or less.....	..do.....	-	-		
20423 58	Shipped in packages of more than 1 pound.....	..do.....	(2)	(2)		
20423 61	Other types of pet food.....	..do.....	183.8	16.4	163.6	6.2
20423 00	Dog, cat and other pet foods, n.s.k.....	..do.....	1392.8	50.0		
20424 --	Other prepared animal feeds, (including feeding materials and adjuncts).....		(X)	275.0	(X)	280.2
20424 11	Grain ground, rolled, pulverized, chopped or crimped, excluding corn meal.....	million sacks (cwt.).....	18.4	59.4	36.0	113.3
20424 22	Mineral mixtures, including oyster shells prepared for feed use.....	million lbs....	763.3	22.6	912.6	35.8
20424 31	Alfalfa meal:					
	Sun cured.....	1,000 short tons.....	321	12.4	289	10.2
20424 35	Dehydrated.....	..do.....	1,739	74.6	1,726	71.2

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
	PREPARED FEEDS--Continued Other prepared animal feeds, (including feeding materials and adjuncts)--Continued					
20424 41	Citrus pulp.....	1,000 short tons.....	454	15.6	(X)	(3)
	Special feeds.....	...do.....				
20424 61	Laboratory (mouse, guinea pig, etc.).....	...do.....	54	6.8		
20424 63	Fur (mink, fox, etc.).....	...do.....	251	29.1		
20424 65	Bird (wild, tame, pigeon, game).....	...do.....	86	8.7		
20424 67	Rabbit.....	...do.....	123	10.6		
20424 69	Other.....	...do.....	199	16.7		
20424 00	Other prepared animal feeds, n.s.k., including other feed materials and special feed, n.e.c.....	...do.....	1249	18.5	(X)	349.7
20420 00	Prepared animal feeds, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	(X)	217.7	(X)	121.9
20420 02	Prepared animal feeds, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	(X)	79.3		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity estimated based on quantity-value relationship of other products in the product class or industry.

<sup>2</sup>Included under code 20423 to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures.

<sup>3</sup>Included under code 2042400.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2042-- PREPARED FEEDS FOR ANIMALS AND FOWLS					
	Materials, ingredients, containers, and supplies, total.....		(X)	3,290.3	(X)	2,615.6
011371	Wheat.....	Million bu.....	31.0	53.1	30.2	53.1
011321	Corn.....	..do.....	368.0	499.4	311.2	420.0
011331	Oats.....	..do.....	59.1	53.1	63.7	53.8
011311	Barley.....	..do.....	32.2	38.6	38.5	40.9
011361	Sorghum grain.....	..do.....	137.9	173.4	91.6	105.4
204110	Wheat flour.....	1,000 cwt.....	8,234.4	23.3	5,946.0	15.7
204123	Wheat germ.....	1,000 short tons..	160.7	8.8	(X)	( <sup>1</sup> )
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	2,118.3	12.3	1,025.3	8.2
209003	Fats and oils for use in flour and prepared flour mixes (purchased as such).....	Million lbs.....	15.2	1.0	74.1	4.4
209004	Fats and oils used in animal feeds.....	..do.....	1,072.2	62.1	(X)	( <sup>1</sup> )
209141	Cottonseed cake and meal.....	1,000 short tons..	652.9	53.0	(X)	( <sup>1</sup> )
209221	Soybean cake and meal.....	..do.....	5,998.0	510.5	(X)	( <sup>1</sup> )
209331	Other oilseed cake and meal.....	..do.....	207.5	16.4	(X)	( <sup>1</sup> )
204243	Alfalfa meal excluding alfalfa hay.....	..do.....	1,615.8	73.2	(X)	( <sup>1</sup> )
204135	Corn meal.....	1,000 cwt.....	8,284.0	20.6	(X)	( <sup>1</sup> )
204133	Hominy feed and meal.....	1,000 short tons..	645.0	32.2	(X)	( <sup>1</sup> )
209436	Fish meal and solubles.....	..do.....	535.5	74.6	(X)	( <sup>1</sup> )
204607	Corn gluten feed and meal.....	..do.....	699.4	54.1	(X)	( <sup>1</sup> )
204121	Millfeed and screenings.....	..do.....	2,664.4	120.0	(X)	( <sup>1</sup> )
209421	Meat meal and tankage.....	..do.....	1,523.5	142.4	(X)	( <sup>1</sup> )
208209	Brewers' and distillers' grains.....	..do.....	418.3	25.5	(X)	( <sup>1</sup> )
281826	Urea.....	..do.....	283.6	22.0	(X)	( <sup>1</sup> )
283391	Microingredients (vitamins, antibiotics, drugs, trace minerals, etc.).....	..do.....	(X)	147.8	(X)	( <sup>1</sup> )
204201	Supplements and concentrates (mixture of feed ingredients).....	..do.....	(X)	77.9	(X)	( <sup>1</sup> )
229921	Burlap bags, new.....	Million bags.....	81.6	18.5	111.7	23.3
239301	Cotton bags.....	..do.....	12.3	3.9	(X)	4.2
264338	Paper shipping sacks.....	..do.....	479.4	39.6	(X)	28.1
265013	Paperboard, folding and corrugated boxes.....	..do.....	(X)	21.8	(X)	12.2
340001	Metal containers.....	..do.....	(X)	66.9	(X)	45.2
970099	All other materials, containers, and supplies consumed.....	..do.....	(X)	525.0	(X)	1,544.7
976000	Materials, ingredients, containers, and supplies, n.s.k. <sup>2</sup> .....	..do.....	(X)	319.3	(X)	256.4

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Included under code 970099.<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2042, these small establishments accounted for approximately 2 percent of payrolls and 3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20D-3

## INDUSTRY SERIES

### preliminary report

## Cereal preparations

SIC Code 2043

The Cereal Preparations Industry includes establishments primarily engaged in manufacturing cereal breakfast foods and related preparations.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Cereal Preparations Industry amounted to \$849.5 million, an increase of 36 percent compared with 1963. Value added by manufacture at \$506.1 million in 1967 was 39 percent more

than value added in 1963. Average employment in the industry showed an increase of 6 percent from 1963 to a total of 12.7 thousand employees in 1967.

Of the \$849.5 million total value of shipments and other receipts of establishments classified as manufactures of cereal preparations, \$241.3 million were products primary to other industries; and receipts for miscellaneous activities. The industry shipments of primary products represented 78 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 80 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2043.--CEREAL PREPARATIONS													
1967 Census....	46	29	12.7	98.0	10.5	21.1	75.1	506.1	346.2	849.5	19.1	57.4	78	85
1967 ASM <sup>1</sup> .....	(NA)	(NA)	11.8	87.5	9.8	20.0	68.2	442.5	300.9	742.9	19.2	53.4	(NA)	(NA)
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.9	84.2	9.9	19.8	65.8	415.6	293.8	707.1	16.2	55.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	11.5	80.0	9.6	19.4	63.1	390.7	280.0	671.3	21.2	50.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	48	30	11.4	75.1	9.4	18.8	59.6	365.0	264.7	625.1	15.3	49.9	80	86
1963 Census....	(NA)	(NA)	12.1	77.1	9.6	18.8	55.6	325.8	251.5	577.0	20.9	44.3	(NA)	(NA)
1962 ASM <sup>1</sup> .....	(NA)	(NA)	11.6	73.4	9.0	18.1	52.3	283.8	221.3	503.5	17.5	42.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	11.1	68.3	8.6	17.9	48.7	266.5	215.5	482.8	14.4	38.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	11.1	66.0	8.7	17.5	47.9	254.8	206.7	460.5	21.5	38.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	43	25	10.9	61.9	8.5	16.8	44.1	243.1	202.0	444.1	17.7	36.6	80	81
1958 Census <sup>2</sup> ...														

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

The total value of cereal preparation shipped by all producers in 1967 was \$714.9 million of which \$608.2 million, or 85 percent, were shipped by plants classified in industry 2043, Cereal Preparations, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 86 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2043.--CEREAL PREPARATIONS												
United States, total.....	46	29	12.7	98.0	10.5	21.1	75.1	506.1	346.2	849.5	19.1	11.4	365.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2043--	CEREAL PREPARATIONS, TOTAL.....	Million lbs....	2118.5	714.9	2,105.7	561.4
20430--	Cereal breakfast foods:					
	Ready-to-serve:					
20430 11	Corn flakes and other corn breakfast foods.....	...do.....	455.5	182.3	391.7	131.6
20430 12	Wheat flakes and other wheat breakfast foods.....	...do.....	458.5	175.6	444.5	146.1
20430 15	Oat breakfast foods.....	...do.....	434.6	130.3	203.2	75.1
20430 17	Rice breakfast foods.....	...do.....	201.6	105.1	176.1	80.6
20430 19	Preparations of other grains and mixed grains, including baby cereal.....	...do.....	105.4	44.7	77.8	28.1
	To-be-cooked before serving:					
20430 52	Farina and other wheat foods.....	...do.....	166.3	32.2	207.0	27.5
20430 53	Roller oats and oatmeal.....	...do.....	195.5	26.2	473.3	58.3
20430 59	Preparations of other grains and mixed grains.....	...do.....	58.4	3.8	128.8	13.2
20430 00	Cereal breakfast foods, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	141.2	14.2	3.3	0.9
20430 02	Cereal breakfast foods, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	1.5	0.5		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>1</sup>Quantity estimated based on quantity-value relationship of other products in the product class or industry.

n.s.k. Not specified by kind.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2043.--CEREAL PREPARATIONS					
	Materials, ingredients, containers, and supplies, total.....		(X)	298.7	(X)	245.7
011311	Barley.....	Million bu.....	1.6	2.2	0.7	1.1
011321	Corn.....	...do.....	9.5	18.1	10.0	16.3
011331	Oats.....	...do.....	(D)	(D)	22.3	17.6
011371	Wheat.....	...do.....	14.2	26.5	14.1	24.6
204110	Wheat flour.....	1,000 cwt.....	2,099.5	15.5	2,386.7	14.6
204123	Wheat germ.....	1,000 short tons..	3.3	0.8	(X)	(NA)
206011	Sugar (cane and beet).....	1,000 cwt.....	3,528.0	34.4	2,665.9	25.0
209003	Fats and oils for use in flour and prepared flour mixes (purchased as such).....	Million lbs.....	(D)	(D)	( <sup>1</sup> )	( <sup>1</sup> )
229921	Burlap bags, new.....	Million bags.....	(D)	(D)	1.3	(Z)
239301	Cotton bags.....	.....	(X)	(D)	(X)	(Z)
264338	Paper shipping sacks.....	.....	(X)	1.4	(X)	0.8
265013	Paperboard, folding and corrugated boxes.....	.....	(X)	56.0	(X)	50.5
340001	Metal containers.....	.....	(X)	(D)	(X)	
970099	All other materials, ingredients, containers, and supplies consumed.....	.....	(X)	112.9	(X)	<sup>1</sup> 92.8
976000	Materials, ingredients, containers, and supplies, n.s.k.....	.....	(X)	1.9	(X)	2.1

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind.

(X) Not applicable. (Z) Less than \$50 thousand.

<sup>1</sup>Included in material code 970099, "All other materials, etc."

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This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2043, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

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More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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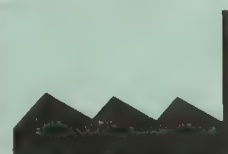
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# 1967 CENSUS OF MANUFACTURES

MC67(P)-20D-4



## INDUSTRY SERIES

### Rice milling

SIC Code 2044

## preliminary report

The Rice Milling Industry includes establishments primarily engaged in cleaning and polishing rice, and in manufacturing rice flour or meal. Important products of this industry include brown rice, milled rice (including polished rice), rice polish, rice bran and rice flour.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Rice Milling Industry amounted to \$547.7 million, an increase of 30 percent compared with 1963. Value added by manufacture at \$103.1 million in 1967 was 28 percent more than value

added in 1963. Average employment in the industry showed a decrease of 2 percent from 1963 to a total of 4.2 thousand employees in 1967.

Of the \$547.7 million total value of shipments and other receipts of establishments classified as rice milling, \$12.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 100 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 100 percent in 1963.

The total value of milled rice and byproducts shipped by all producers in 1967 was \$546.7 million of which 98 percent, were shipped by plants

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2044.--Rice Milling													
1967 Census....	68	46	4.2	24.4	3.2	7.2	15.1	103.1	445.1	547.7	9.8	123.0	100	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	4.0	21.0	3.0	6.9	13.3	86.2	371.9	457.6	7.2	107.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	4.2	20.7	3.2	7.5	13.7	84.5	375.5	456.6	5.0	103.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	4.2	21.1	3.2	7.3	13.3	70.0	361.0	442.9	4.5	102.3	(NA)	(NA)
1963 Census....	74	49	4.3	20.3	3.2	7.3	12.7	80.5	351.1	423.0	3.3	109.6	100	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	4.4	18.9	3.3	8.0	11.8	65.8	332.8	399.3	5.0	84.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	3.9	17.2	2.8	6.4	9.7	62.8	275.7	329.4	* 3.7	81.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	3.8	15.4	2.8	6.5	9.1	60.0	259.5	315.8	3.0	70.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	3.6	14.1	2.7	5.8	8.5	52.0	235.7	293.9	1.2	60.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	72	51	3.8	14.3	2.9	6.0	9.0	53.2	262.3	312.1	1.4	67.2	100	100

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

classified in industry 2044, Rice Milling, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 100 percent in 1963.

2, and 4 may be compared with the product statistics in table 3.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2044.--Rice Milling												
United states, total.....	68	46	4.2	24.4	3.2	7.2	15.1	103.1	445.1	547.7	9.8	4.3	80.5
West South Central:													
Arkansas.....	11	9	0.9	4.9	0.7	1.8	3.2	16.6	110.5	126.0	4.1	(D)	(D)
Texas.....	11	10	1.3	9.0	0.8	1.9	4.2	40.4	134.0	175.7	2.0	1.2	24.4
Pacific:													
California.....	11	6	0.6	4.9	0.5	1.1	3.7	25.0	94.2	117.2	(D)	0.7	28.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2044- --	MILLED RICE, TOTAL.....	Million lbs..	6706.7	546.7	5,097.1	407.1
20440 --	Milled rice and byproducts:					
	Head rice:					
20440 11	Packed in 100-pound bags and over.....	...do.....	4211.7	362.3	3,071.3	272.7
20440 15	Packed in 3-pound containers or less.....	...do.....	398.1	53.6	420.4	48.7
20440 17	Packed in other containers.....	...do.....	570.2	57.4	318.8	33.6
20440 21	Second heads.....	...do.....	448.5	25.9	282.7	16.4
20440 31	Screenings.....	...do.....	150.8	8.9	145.3	7.2
20440 41	Brewers' rice.....	...do.....	258.4	12.1	261.3	12.4
20440 51	Bran.....	...do.....	453.3	8.8	506.5	8.9
20440 98	All other milled rice and byproducts.....	...do.....	<sup>1</sup> 184.1	15.1	<sup>1</sup> 58.8	4.7
20440 00	Milled rice products, n.s.k. (For companies with 10 or more employees, See Note.).....	...do.....	<sup>1</sup> 18.2	1.5	131.8	2.5
20440 02	Milled rice products, n.s.k. (For companies with less than 10 employees, See Note.).....	...do.....	<sup>1</sup> 13.4	1.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

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n.s.k. Not specified by kind.

<sup>1</sup>Quantity estimated based on quantity-value relationship for other products within the industry.

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(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2044.—RICE MILLING					
	Materials, ingredients, containers, and supplies, total.....		(X)	430.1	(X)	336.4
011341	Corn, including sorghum grain.....	Million bu.....				
	Rice, rough.....	Million lbs.....	7901.8	403.1	6,294.5	314.2
	Purchased cornstarch.....	...do.....				
970099	All other materials, ingredients, containers, and supplies consumed.....		(X)	27.0	(X)	22.3

(X) Not applicable.

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# 1967 CENSUS OF MANUFACTURES

## INDUSTRY SERIES

### Wet corn milling

SIC Code 2046

preliminary  
report

The Wet Corn Milling Industry includes establishments primarily engaged in milling corn or sorghum grain (milo) by the wet process, and producing starch, sirup, oil, sugar, and byproducts, such as gluten feed and meal. Establishments primarily engaged in manufacturing starch from other vegetable sources (potato, wheat, etc.) are also included. Establishments primarily engaged in manufacturing table sirups from corn sirup and other ingredients, and those manufacturing starch base dessert powders, are classified in industry 2099.

This classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Wet Corn Milling Industry amounted to \$751.4 million, an increase of 21 percent compared with 1963. Value added by manufacture at \$353.7 million in 1967 was 22 percent more than value added in 1963. Average employment in the industry showed an increase of 6 percent from 1963 to a total of 14.1 thousand employees in 1967.

Of the \$751.4 million total value of shipments and other receipts of establishments classified as manufacturers of wet corn milling products, \$121.4 million were products primary to other industries; and \$7.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2046.-WET CORN MILLING													
1967 Census....	45	23	14.1	116.2	9.8	20.4	75.2	353.7	401.7	751.4	40.5	77.3	84	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	13.9	106.6	9.9	21.0	73.6	346.6	417.7	755.2	43.7	81.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	12.9	98.4	9.3	20.4	70.3	302.7	382.1	679.9	47.7	68.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	12.5	95.3	9.2	19.7	66.0	291.8	345.1	629.5	47.9	65.1	(NA)	(NA)
1963 Census....	60	20	13.2	89.7	9.8	20.9	65.3	290.9	335.8	622.4	26.1	65.5	83	93
1962 ASM <sup>1</sup> .....	(NA)	(NA)	13.9	91.8	10.2	22.1	63.0	277.1	321.2	602.0	28.1	55.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	13.9	87.4	10.3	21.8	60.2	282.3	307.7	584.7	33.9	62.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	13.7	83.2	10.1	21.7	57.2	277.6	286.3	566.4	27.0	53.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	79.5	7.9	21.3	55.6	262.2	293.6	557.8	25.0	53.5	(NA)	(NA)
1958 Census <sup>2</sup> ....	59	26	13.8	78.8	10.4	22.2	56.3	249.4	282.0	528.5	18.1	54.0	91	98

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE    Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 83 percent in 1963.

The total value of wet corn milling products shipped by all producers in 1967 was \$647.0 million of which \$622.4 million, or 96 percent, were shipped by plants classified in industry 2046, Wet Corn Milling, while the remainder was shipped by plants classified in other indus-

tries. This percent, called the coverage ratio, was 93 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	All em- ployees  (1,000)	Value added by manufac- ture  (million dollars)
	Total	With 20 employ- ees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2046.-WET CORN MILLING												
United States, total.....	45	23	14.1	116.2	9.8	20.4	75.2	353.7	401.7	751.4	40.5	13.2	290.9
East North Central...	10	8	8.5	70.5	5.9	12.1	46.5	236.9	225.2	458.1	21.3	8.4	185.7
West North Central...	9	7	4.8	40.2	3.2	6.8	24.7	100.1	159.9	260.1	16.9	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2046- --	WET CORN MILLING PRODUCTS, TOTAL.....		(X)	647.0	(X)	547.2
	Corn sirup, unmixed:					
20460 08	Low (28 to 37 dextrose equivalent).....	Million lbs....	210.5	10.5	89.4	4.5
20460 12	Regular (38 to 47 dextrose equivalent).....	...do.....	1,423.0	66.6	1,200.5	60.1
20460 13	Intermediate (48 to 57 dextrose equivalent).....	...do.....	175.0	8.3	128.4	6.4
20460 14	High (58 to 67 dextrose equivalent).....	...do.....	908.8	43.2	843.0	42.5
20460 15	Extra high (68 and over dextrose equivalent).....	...do.....	60.6	2.8		
	Corn sugar (crude and refined):					
20460 16	Hydrous dextrose (including crude type).....	...do.....	1,227.9	81.6	1,093.6	71.5
20460 17	Anhydrous dextrose.....	...do.....				
20460 18	Corn sirup solids (dried corn sirup).....	...do.....	127.1	10.4	110.4	8.8
	Cornstarch, including milo:					
20460 31	In packages larger than 5 pounds.....	...do.....	3,119.0	199.5	2,498.3	169.2
20460 33	In packages of 5 pounds or less.....	...do.....			66.8	8.1
	Other starches:					
20460 41	Potato, Irish.....	...do.....	121.3	11.0	132.6	8.7
20460 43	Other starches (wheat, rice, etc.).....	...do.....			102.8	9.2
20460 51	Dextrin (corn, tapioca, and other).....	...do.....	168.7	16.0	118.9	9.9
20460 61	Crude corn oil.....	...do.....	(1)	76.4	(1)	60.9
20460 65	Refined corn oil.....	...do.....				
	Wet process corn byproducts:					
20460 71	Steepwater concentrate (50 percent solids basis).....	...do.....	78.0	1.5	42.7	1.0
20460 75	Corn gluten feed.....	...do.....	2,365.9	55.1	1,316.8	27.4
20460 77	Corn gluten meal.....	...do.....	875.2	36.6	1,078.2	33.3
20460 79	Other wet process corn byproducts.....	...do.....	341.4	16.9	(NA)	17.2
20460 00	Other wet process corn byproducts, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	(X)	10.3	(X)	8.6
20460 02	Other wet process corn byproducts, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	(X)	0.3		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity data are withheld due to duplication arising from shipments between establishments in the same industry classification.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2046.--WET CORN MILLING					
	Materials, ingredients, containers, and supplies, total.....		(X)	376.7	(X)	311.3
011301	Corn, including sorghum grain.....	Million bu.....	224.1	289.1	171.5	233.1
011341	Rice, rough.....	Million lbs.....				
204601	Purchased cornstarch.....	...do.....	(1)	(1)	-	-
970099	All other materials, ingredients, containers, and supplies consumed.....	...do.....	(X)	84.4	(X)	78.2
976000	Materials, ingredients, containers and supplies, n.s.k.....	...do.....	(X)	3.2		

n.s.k. Not specified by kind. (X) Not applicable. - Represents zero.

<sup>1</sup>Included in material code 970099, all other materials.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2046, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

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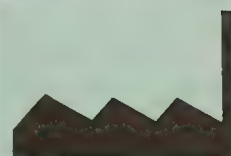
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**POSTAGE AND FEES PAID**

**U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20E-1

## INDUSTRY SERIES

### Bread, cake, and related products

SIC Code 2051

**preliminary  
report**

The Bread and other Bakery Products, Except Cookies and Crackers, Industry includes establishments primarily engaged in manufacturing bread, cakes, and other "perishable" bakery products. Establishments primarily engaged in producing "dry" bakery products, such as biscuits, crackers, and cookies are classified in industry 2052. Establishments producing bakery products primarily for direct sale on the premises to household consumers are classified in Retail Trade, industry 5462. However, establishments manufacturing bakery products for sale primarily for home service delivery, or through one or more nonbaking retail outlets, are included in this industry.

The classification of establishments for which data are tabulated in this report is based upon

the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Bread and Related Products Industry amounted to \$5,082.9 million, an increase of 13 percent compared with 1963. Value added by manufacture at \$2,738.1 million in 1967 was 15 percent more than value added in 1963. Average employment in the industry showed a decrease of 7 percent from 1963 to a total of 221.6 thousand employees in 1967.

Of the \$5,082.9 million total value of shipments and other receipts of establishments classified as manufacturers of bread and related products, \$52.4 million were products primary to

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (per-cent)	Coverage ratio (per-cent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2051.--BREAD, CAKE, AND RELATED PRODUCTS													
1967 Census <sup>1</sup> ...	4,049	1,616	221.6	1,412.7	125.0	251.7	709.4	2,738.1	2,343.4	5,082.9	126.4	135.2	99	99
1966 ASM <sup>1</sup> .....	(NA)	(NA)	231.8	1,419.6	127.9	266.1	698.8	2,658.4	2,349.0	5,007.2	148.6	130.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	235.5	1,355.6	130.0	266.4	671.6	2,500.0	2,209.4	4,709.1	142.0	129.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	234.2	1,330.7	127.3	272.5	658.0	2,492.2	2,159.0	4,618.2	115.0	131.0	(NA)	(NA)
1963 Census <sup>1</sup> ...	5,010	1,904	237.0	1,300.3	129.9	267.6	645.7	2,403.8	2,103.1	4,506.0	95.3	130.1	98	99
1962 ASM <sup>1</sup> .....	(NA)	(NA)	254.2	1,321.0	137.2	286.6	641.1	2,333.5	2,106.6	4,446.3	92.6	126.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	255.5	1,276.8	140.5	292.8	631.0	2,284.9	2,076.5	4,365.2	96.4	132.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	260.4	1,271.6	144.0	300.5	629.6	2,266.2	2,059.1	4,332.9	101.9	132.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	260.7	1,222.9	146.6	299.3	607.6	2,236.4	2,027.5	4,266.6	*127.2	132.6	(NA)	(NA)
1958 Census <sup>1</sup> ...	6,026	2,161	257.8	1,158.1	145.9	297.5	574.7	2,118.8	1,995.0	4,098.6	104.1	144.2	98	100

Note: The report form for the bakery industry includes a check-box inquiry which is used to identify single-shop retail bakeries. These bakeries are classified as retailers and are included in the census of business. To the extent that the respondents completed this inquiry, all such retailers were excluded from the 1963 and 1967 censuses of manufactures. However, for 1958, there were about 2,000 small establishments reporting on "short forms" that were not subjected to the same kind of analysis as in 1963 and 1967. For 1958, this group had 18,884 employees and \$119,800 thousand adjusted value added. A review of these 1958 report forms indicated that 846 single-shop bakeries with 2,890 employees were incorrectly included as wholesale bakeries in the 1958 census.

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS**

other industries; and \$712.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

The total value of bread and related products shipped by all producers in 1967 was \$4,362.8 million of which \$4,308.6 million, or 99 percent, were shipped by plants classified in industry

2051, Bread and Related Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 99 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2051.--BREAD, CAKE, AND RELATED PRODUCTS												
United States, total.....	4,049	1,616	221.6	1,412.7	125.0	251.7	709.4	2,738.1	2,343.4	5,082.9	126.4	237.0	2,403.8
New England.....	410	120	17.0	106.1	9.6	18.8	54.3	213.3	184.0	397.3	10.9	16.9	163.5
Maine.....	45	15	1.9	11.0	1.1	2.4	5.8	23.8	20.7	44.4	1.2	2.0	23.8
Connecticut.....	96	30	5.0	30.3	2.8	5.2	17.4	55.9	51.4	107.3	4.3	(D)	(D)
Middle Atlantic.....	1,062	360	48.5	315.4	28.9	57.3	167.4	589.8	518.0	1,107.9	23.7	58.8	609.0
New York.....	488	156	22.1	150.3	13.3	26.0	79.6	269.9	243.1	512.8	9.4	28.4	303.7
New Jersey.....	180	64	7.6	49.7	4.5	9.3	27.2	98.9	87.4	186.6	3.9	8.7	96.9
Pennsylvania.....	394	140	18.8	115.3	11.0	22.0	60.6	221.0	187.5	408.5	10.4	21.7	208.5
East North Central....	747	312	46.2	295.1	26.0	52.7	154.5	550.8	470.6	1,021.7	21.5	48.7	477.0
Ohio.....	210	88	13.4	83.0	6.9	14.0	41.0	163.5	142.7	306.2	5.6	14.3	145.7
Indiana.....	93	43	5.1	31.0	2.9	5.9	15.8	59.7	57.1	116.8	2.4	(D)	(D)
Michigan.....	153	55	8.7	60.4	5.3	10.8	33.3	103.3	93.5	196.8	3.8	9.5	86.8
West North Central....	344	139	17.3	108.0	9.6	19.3	54.5	207.0	174.5	381.5	14.0	18.9	178.0
Missouri.....	87	46	6.5	41.6	3.7	7.2	22.0	80.6	68.2	148.7	6.4	7.2	72.2
North Dakota.....	24	8	0.6	3.3	0.4	0.7	1.5	6.7	5.5	12.2	0.5	0.6	5.3
Kansas.....	45	18	2.2	13.7	1.0	2.3	6.4	26.4	20.2	46.5	(D)	(D)	(D)
South Atlantic.....	416	231	31.4	179.7	17.9	37.6	87.0	379.2	355.9	736.3	17.7	30.9	292.8
District of Columbia	12	9	1.7	11.7	1.0	2.1	6.9	26.1	23.7	49.7	0.8	1.8	20.6
West Virginia.....	36	23	2.1	13.4	1.1	2.7	6.0	28.9	27.3	56.3	1.3	2.3	22.9
Georgia.....	54	27	4.6	27.1	2.7	5.8	13.4	60.7	56.0	116.7	(D)	4.6	45.3
East South Central....	163	91	12.4	70.2	6.3	13.3	30.5	135.6	132.2	267.8	8.7	11.9	112.7
West South Central....	317	138	17.5	102.6	9.2	19.5	45.8	206.7	184.4	391.2	9.3	17.8	166.5
Texas.....	175	79	10.2	58.2	5.5	11.6	26.4	116.1	105.8	221.9	5.3	10.6	98.7
West.....	590	225	31.4	235.5	17.4	33.1	115.5	455.7	323.6	779.4	20.8	33.0	404.2
New Mexico.....	23	8	0.7	3.8	0.3	0.7	1.5	7.9	7.8	15.8	0.5	0.9	7.5
Arizona.....	31	9	1.1	6.4	0.6	1.1	2.9	15.5	11.6	27.1	0.5	1.2	13.8
California.....	288	115	20.1	160.1	10.8	20.4	76.1	308.5	208.1	516.7	(D)	19.9	265.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

## 1967 CENSUS OF MANUFACTURES

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (million lbs. baked weight)	Value (million dollars)	Quantity (million lbs. baked weight)	Value (million dollars)
2051- --	BREAD, CAKE, AND RELATED PRODUCTS, TOTAL.....	(X)	4,362.8	(X)	3,829.8
20511 --	Bread and bread-type rolls.....	14,493.6	2,798.1	13,733.4	2,496.6
20511 11	White, pan.....	8,809.3	1,526.1	9,002.2	1,468.3
20511 13	White, hearth, including French, Italian, etc.....	501.9	110.0	435.7	90.0
20511 15	Whole wheat, cracked wheat, and other dark wheat breads.....	569.3	122.9	648.6	130.0
20511 17	Rye, including pumpernickel.....	451.6	99.0	511.8	105.9
	Specialty breads:				
20511 21	Raisin.....	173.5	41.4	118.4	27.5
20511 29	Other specialty breads (potato, salt-rising, salt-free, canned, etc.)..	223.2	52.3	299.1	67.0
	Rolls, bread-type, including brown and serve rolls:				
20511 33	Hamburger and weiner rolls.....	1,852.2	417.6	1,469.2	327.4
20511 35	Brown and serve rolls.....	276.3	76.7	254.0	69.8
20511 39	Other bread-type rolls (kaiser, parkerhouse, English muffins, etc.)....	358.3	104.1	355.3	94.0
20511 41	Bread stuffing and bread crumbs.....	79.6	17.0	639.0	116.8
20511 00	Bread and bread-type rolls, n.s.k.....	<sup>1</sup> 1,198.4	231.0		
20512 --	Sweet yeast goods.....	1,027.6	393.6	863.4	330.5
20512 13	Yeast-raised doughnuts.....	376.4	138.8	178.7	73.7
20512 98	All other types of sweet yeast goods, including sweet rolls and coffee— cake.....	537.8	211.9	625.0	234.6
20512 00	Sweet yeast goods, n.s.k.....	<sup>1</sup> 113.4	42.9	59.6	22.2
20513 11	Soft cakes, all types, including pound, layer, fruit, etc.....	1,200.2	460.9	1,138.2	438.0
20514 11	Pies (fruit and custard), except frozen.....	719.3	252.1	714.4	205.9
20515 11	Pastries, all types of baking powder leavened only, including cream puffs, eclairs, ladyfingers, French pastry, puff pastries, etc.....	(X)	44.7	(X)	51.2
20517 11	Doughnuts, cake-type (baking powder leavened).....	438.9	164.0	369.2	141.4
20510 00	Bread and other bakery products, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	181.3	(X)	166.3
20510 02	Bread and other bakery products, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	68.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity estimated based on quantity-value relationship reported for other products of the the product class.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity	Delivered cost	Quantity	Delivered cost
		(million pounds)	(million dollars)	(million pounds)	(million dollars)
	INDUSTRY 2051.—BREAD, CAKE, AND RELATED PRODUCTS				
	Materials, ingredients, containers, and supplies, total.....	(X)	1,866.3	(X)	1,673.0
204110	Wheat flour.....	9,595.1	604.9	9,579.0	578.7
204554	Prepared flour mixes.....	575.7	68.3	440.4	56.0
206011	Sugar (cane and beet).....	1,366.0	127.4	1,296.2	128.1
209611	Shortening.....	396.2	59.2	316.5	45.5
201151	Lard.....	268.2	28.2	289.9	31.9
209601	Margarine and puff paste.....	48.3	8.2	40.3	6.7
209014	Other fats and oils <sup>1</sup> .....	130.5	24.7	156.5	29.4
202311	Dried milk.....	207.2	39.6	223.1	33.3
201561	Frozen and liquid eggs.....	161.3	42.0	178.8	45.3
970005	Containers and wrapping materials.....	(X)	257.7	(X)	254.5
970099	All other materials, ingredients, and supplies.....	(X)	384.5	(X)	322.6
976000	Materials, ingredients, etc., n.s.k. <sup>1</sup> .....	(X)	221.6	(X)	141.0

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2051, these small establishments accounted for approximately 2 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-20E-2

## INDUSTRY SERIES

**preliminary  
report**

### Cookies and crackers

SIC Code 2052

The Cookies and Crackers Industry includes establishments primarily engaged in manufacturing biscuit except raised biscuit, crackers, and similar "dry" bakery products. Establishments primarily engaged in producing "perishable" bakery products are classified in industry 2051.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Cookies and Crackers Industry amounted to \$1,383.5 million, an increase of 20

percent compared with 1963. Value added by manufacture at \$754.5 million in 1967 was 20 percent more than value added in 1963. Average employment in the industry with a total of 43.1 thousand employees in 1967 showed no significant change from 1963.

Of the \$1,383.5 million total value of shipments and other receipts of establishments classified as manufacturers of cookies and crackers, \$50.7 million were products primary to other industries; and \$74.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 96 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 97 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2052.--COOKIES AND CRACKERS														
1967 Census....	350	201	43.1	254.6	34.7	68.6	183.4	754.5	630.5	1,383.5	24.3	74.9	96	94
1966 ASM <sup>1</sup> .....	(NA)	(NA)	42.5	234.4	34.1	67.5	167.2	712.7	620.2	1,327.3	33.2	73.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	42.4	220.0	33.9	66.8	158.5	673.4	563.7	1,235.6	30.9	64.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	42.2	215.3	33.4	67.2	154.0	656.0	540.8	1,197.8	15.3	61.7	(NA)	(NA)
1963 Census....	356	208	43.2	213.0	34.1	68.0	150.9	627.0	523.3	1,150.1	26.4	61.6	97	95
1962 ASM <sup>1</sup> .....	(NA)	(NA)	42.4	204.8	33.2	66.8	143.1	618.2	516.1	1,134.1	38.0	63.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	42.8	193.5	33.4	66.5	132.8	591.8	483.0	1,073.9	14.2	59.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	43.4	189.7	33.8	67.5	130.5	576.5	478.4	1,051.3	12.7	60.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	44.0	182.3	33.8	66.8	123.9	542.4	458.7	998.0	14.5	59.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	339	206	44.5	179.8	34.3	68.5	122.7	523.3	456.8	982.5	15.5	58.6	97	95

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of cookies and crackers shipped by all producers in 1967 was \$1,337.3 million of which \$1,258.5 million, or 94 percent, were shipped by plants classified in industry 2052, Cookies and Crackers, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 95 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2052.--COOKIES AND CRACKERS												
United States, total.....	350	201	43.1	254.6	34.7	68.6	183.4	754.5	630.5	1,383.5	24.3	43.2	627.0
New England.....	13	5	0.8	3.9	0.6	1.1	2.4	6.9	7.7	14.8	0.2	1.1	6.7
Middle Atlantic.....	129	55	12.3	72.9	10.1	20.0	53.9	230.5	163.9	394.4	4.8	12.2	185.2
New York.....	49	19	1.4	8.4	1.0	2.0	4.7	17.8	16.9	34.5	0.7	2.5	32.7
New Jersey.....	24	14	5.9	34.7	4.8	9.7	26.2	112.5	82.4	194.9	2.0	4.8	73.9
Pennsylvania.....	56	22	5.0	29.8	4.3	8.2	23.0	100.1	64.6	165.1	2.2	5.0	78.6
East North Central...	61	45	12.1	74.2	10.4	20.9	59.9	222.1	191.5	413.8	7.2	11.9	193.5
Ohio.....	13	10	2.9	17.1	2.6	5.3	14.8	56.8	53.4	110.1	3.2	2.7	46.9
Michigan.....	15	10	1.6	8.4	1.4	2.4	6.3	22.5	26.8	49.4	1.6	1.6	13.5
West North Central...	24	16	2.3	12.0	1.9	3.7	9.2	37.9	41.5	79.4	0.8	2.9	32.7
Missouri.....	12	7	0.8	4.3	0.7	1.3	3.3	14.4	13.9	28.3	0.4	0.9	14.5
South Atlantic.....	33	21	6.9	38.8	4.7	9.5	22.8	109.2	95.8	204.3	7.2	6.2	84.8
Georgia.....	9	7	3.1	16.7	2.5	4.9	12.9	59.1	51.0	110.0	(D)	2.5	46.2
East South Central...	15	10	1.7	8.8	1.3	2.5	5.7	18.6	25.2	43.7	1.1	1.5	11.2
West South Central...	18	13	1.8	8.9	1.4	2.9	6.5	32.7	25.9	58.5	0.4	2.1	31.3
West.....	57	36	5.3	34.1	4.3	7.9	23.0	96.5	79.0	174.6	2.7	5.2	81.6
California.....	34	20	2.9	20.2	2.3	4.4	12.4	47.4	42.9	89.4	(D)	2.7	37.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity	Value (million dollars)	Quantity	Value (million dollars)
		Million lbs. (bkd. wt.)		Million lbs. (bkd. wt.)	
2052- --	COOKIES AND CRACKERS, TOTAL.....	(X)	1,337.2	(X)	1,137.6
20521 --	Crackers and pretzels.....	1,788.6	618.0	1,514.2	450.2
20521 23	Graham crackers.....	755.4	270.9	( <sup>1</sup> )	( <sup>1</sup> )
20521 25	Saltines.....	440.3	125.3	( <sup>1</sup> )	( <sup>1</sup> )
20521 33	Cracker meal and crumbs.....			<sup>1</sup> 1,243.9	<sup>1</sup> 358.6
20521 35	Cracker sandwiches made from crackers produced in the reporting establishment <sup>3</sup> .....	139.2	51.8		
20521 98	Other crackers and biscuits (sponge, sprayed varieties low-sugar content biscuits, melba toast, etc.).....			125.2	46.3
20521 51	Pretzels.....	328.2	126.0	( <sup>1</sup> )	( <sup>1</sup> )
20521 00	Crackers and pretzels, n.s.k.....	124.6	43.7	139.4	43.5
		<sup>2</sup> 0.9	0.3	<sup>3</sup> 5.6	1.7
20522 --	Cookies and ice cream cones.....	(X)	698.2	(X)	679.8
20522 13	Sandwich cookies, made from cookies made in the reporting establishment.	638.2	190.0		
20522 15	Marshmallow cookies.....	106.2	38.3		
20522 19	All other cookies and wafers except wafers for making ice cream sandwiches.....	1,207.4	421.9	1,924.7	648.5
20522 35	Wafers for making ice cream sandwiches.....	56.1	14.1		
		Millions of cones		Millions of cones	
20522 31	Ice cream cones and cups.....	3,614.9	28.3	2,605.4	22.3
20522 00	Other dry bakery products, n.s.k.....	(X)	5.6	(X)	9.0
20520 00	Biscuit, crackers, and pretzels, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	18.0		
20520 02	Biscuit, crackers, and pretzels, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	3.0	(X)	7.6

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Figures are totals for codes 2052123, 2052125, 2052133, and 2052198.

<sup>2</sup>Quantity estimated based on quantity value relationship of other products in the product class or industry.

<sup>3</sup>Information for cracker sandwiches made from purchased crackers is included in the report for Industry 2099, Food Preparation, N.E.C.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

Code	Material	1967		1963	
		Quantity	Delivered cost	Quantity	Delivered cost
		(million pounds)	(million dollars)	(million pounds)	(million dollars)
	INDUSTRY 2052.--COOKIES AND CRACKERS				
	Total cost of materials, ingredients, containers, and supplies.....	(X)	584.9	(X)	475.3
204110	Wheat flour.....	25,333.1	144.0	2,268.6	115.3
204554	Prepared flour mixes.....	382.6	2.9	13.4	1.0
206011	Sugar (cane and beets) in terms of sugar solids.....	634.1	62.9	604.8	59.9
209611	Shortening.....	265.6	36.0	175.3	22.2
201151	Lard.....	199.9	17.5	195.4	18.4
209601	Margarine and puff paste.....	2.6	0.4	3.3	0.4
209014	Other fats and oils (cooking oils, butter, etc.).....	53.7	9.7	106.4	16.2
202311	Dried milk.....	20.5	3.3	18.2	2.4
201561	Frozen and liquid eggs.....	10.7	4.2	11.2	4.0
970005	Containers and wrapping materials.....	(X)	148.3	(X)	126.9
970099	All other materials, containers, and supplies.....	(X)	142.2	(X)	101.1
976000	Materials, ingredients, etc., n.s.k. <sup>1</sup> .....	(X)	13.5	(X)	7.5

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2052, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

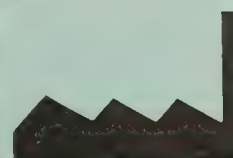
**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

POSTAGE AND FEES PAID  
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P) 20F-1

## INDUSTRY SERIES

### Raw cane sugar

SIC Code 2061

**preliminary  
report**

The Cane Sugar, Except Refining Only, Industry includes establishments primarily engaged in manufacturing raw sugar, sirup, or finished (granulated or clarified) cane sugar from sugar cane. Establishments primarily engaged in refining sugar from purchased raw cane sirup or sugar sirups are classified in industry 2062.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Raw Cane Sugar Industry amounted

to \$368.5 million, a decrease of 3 percent compared with 1963. Value added by manufacture at \$133.8 million in 1967 was 1 percent less than value added in 1963. Average employment in the industry showed a decrease of 5 percent from 1963 to a total of 7.9 thousand employees in 1967.

Of the \$368.5 million total value of shipments and other receipts of establishments classified as manufacturers of raw cane sugar, \$1.5 million were products primary to other industries; and \$4.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)	
	INDUSTRY 2061.--RAW CANE SUGAR													
1967 Census....	383	74	7.9	48.5	6.2	14.5	35.4	133.8	238.7	368.5	21.4	23.6	99	99+
1966 ASM <sup>1</sup> .....	(NA)	(NA)	7.9	45.2	6.2	14.3	33.0	121.1	187.1	313.5	24.6	20.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	8.0	42.7	6.4	14.5	31.1	107.6	182.0	294.4	17.6	20.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	8.5	42.2	6.5	15.4	30.3	106.2	216.0	325.2	24.4	19.5	(NA)	(NA)
1963 Census....	74	73	8.3	38.8	6.3	14.6	37.9	135.7	251.9	378.7	19.3	24.3	99	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	6.8	31.2	5.3	12.1	22.2	77.2	154.6	232.5	20.8	3.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	31.5	5.7	13.2	22.7	74.4	156.2	229.3	*10.5	5.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	28.5	5.6	12.7	20.7	81.8	118.6	200.4	*7.8	5.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	7.5	29.7	6.0	13.3	21.8	78.9	118.7	198.0	*8.4	6.2	(NA)	(NA)
1958 Census <sup>2</sup> ....	76	70	7.3	28.7	5.6	12.8	19.5	67.8	109.7	178.0	8.0	8.5	(NA)	(NA)

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

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**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
**Rocco C. Siciliano**, Under Secretary  
**Harold C. Passer**, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

secondary. This percent, called the specialization ratio for the industry, was 99 percent in 1963.

The total value of raw cane sugar shipped by all producers in 1967 was \$363.5 million of which \$362.5 million, or 99+ percent, were shipped by plants classified in industry 2061, Raw Cane Sugar, while the remainder was shipped by plants classified in other industries. This

percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2061.--RAW CANE SUGAR												
United States, total.....	83	74	7.9	48.5	6.2	14.5	35.4	133.8	238.7	368.5	21.4	8.3	135.7
South.....	56	50	4.1	23.8	3.4	8.6	18.9	61.6	133.3	191.0	10.9	3.9	63.9
Louisiana.....	44	42	2.7	13.6	2.3	5.8	10.7	32.9	74.6	106.2	6.1	(D)	(D)
Hawaii.....	23	23	3.7	24.4	2.7	5.7	16.3	71.3	103.8	175.0	10.4	4.3	69.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2061- --	RAW CANE SUGAR AND BYPRODUCTS, TOTAL.....	1,000 short tons.....	(NA)	363.5	3,894.8	373.5
20610 11	Raw cane sugar.....	...do.....	2,243.5	325.2	2,028.0	324.7
	Other sugarcane mill products and byproducts:					
20610 31	Sugar for consumer use without further processing.....	...do.....	( <sup>1</sup> )	( <sup>1</sup> )	26.4	4.5
20610 52	Sugarcane sirup and molasses, except blackstrap.....	...do.....	(NA)	3.9	22.5	2.6
20610 71	Blackstrap molasses, except refiners' blackstrap.....	...do.....	654.3	16.7	1,219.6	39.7
20610 81	Bagasse.....	...do.....	483.3	3.1	598.3	2.1
20610 00	Raw cane sugar and byproducts, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	<sup>2</sup> 143.7	<sup>1</sup> 14.4	(X)	(X)
20610 02	Raw cane sugar and byproducts, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	<sup>2</sup> 2.0	0.2	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>In 1967 data for product code 20610 31 are included with product code 20610 00 in order to avoid disclosing figures for individual companies.

<sup>2</sup>Quantity estimated based on the reported quantity-value relationship for other products of the product class or industry.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2061.--RAW CANE SUGAR					
	Materials, containers, and supplies, total.....	.....	(X)	228.7	(X)	243.4
011981	Sugarcane.....	1,000 short tons.	19,937.1	185.5	22,495.5	231.2
206101	Raw cane sugar (convert to 96° basis).....	.....	(X)	( <sup>1</sup> )	(X)	( <sup>1</sup> )
970099	All other materials, parts, containers, and supplies consumed.....	.....	(X)	<sup>1</sup> 35.7	(X)	<sup>1</sup> 12.2
976000	Materials, n.s.k. <sup>2</sup> .....	.....	(X)	7.5	(X)	(X)

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>In 1963 and 1967 data for material code 206101 are included with material code 970099 to avoid disclosing figures for individual companies.

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2061, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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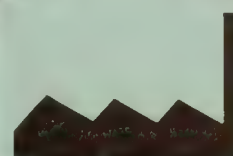
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20F-2

## INDUSTRY SERIES

### Cane sugar refining

SIC Code 2062

**preliminary  
report**

The Cane Sugar Refining Industry includes establishments primarily engaged in refining purchased raw cane sugar and sugar sirup.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Cane Sugar Refining Industry amounted to \$1,375.7 million, an increase of 8 percent compared with 1963. Value added by manufacture at \$308.5 million in 1967 was 21 percent more than value added in 1963. Average employment

in the industry showed a decrease of 7 percent from 1963 to a total of 11.5 thousand employees in 1967.

Of the \$1,375.7 million total value of shipments and other receipts of establishments classified as manufacturers of refined cane sugar, \$1.3 million were products primary to other industries. The industry shipments of primary products represented 100 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 100 percent in 1963.

The total value of refined cane sugar products shipped by all producers in 1967 was \$1,336.9 million of which \$1,335.1 million, or 100 percent,

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2062.--CANE SUGAR REFINING														
1967 Census....	<sup>3</sup> 34	27	11.5	92.7	8.7	18.7	69.2	308.5	1,081.0	1,375.7	24.1	165.5	100	100
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.1	88.1	8.4	17.8	64.7	262.8	961.0	1,219.9	25.6	128.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	11.2	85.0	8.5	17.9	62.5	268.0	914.1	1,181.6	18.6	126.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	12.1	87.6	9.1	19.2	64.2	204.5	944.3	1,185.1	22.7	130.3	(NA)	(NA)
1963 Census....	25	25	12.4	90.8	9.5	20.7	66.9	254.4	1,048.1	1,271.2	16.2	214.6	100	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	12.9	89.0	10.0	21.7	66.5	234.0	910.9	1,139.7	11.4	132.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	13.9	89.0	10.6	22.5	66.7	211.4	858.5	1,076.2	14.7	122.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	14.9	91.6	11.5	24.4	69.0	224.5	841.3	1,067.6	23.3	122.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	15.4	88.7	12.1	25.2	67.3	189.2	847.3	1,025.4	19.4	124.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	28	25	15.2	84.0	11.8	25.3	63.4	184.8	812.6	997.3	26.8	101.5	100	100

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued December 1969

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**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 Harold C. Passer, Assistant Secretary for Economic Affairs  
 BUREAU OF THE CENSUS George Hay Brown, Director

were shipped by plants classified in industry 2, and 4 may be compared with the product 2062, Cane Sugar Refining, while the remainder statistics in table 3. was shipped by plants classified in other industries. This percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2062.--CANE SUGAR REFINING												
United States, total.....	134	27	11.5	92.7	8.7	18.7	69.2	308.5	1,081.0	1,375.7	24.1	12.4	254.4
North Central.....	7	4	0.3	2.6	0.2	0.5	1.7	9.4	58.2	67.2	0.9	0.3	4.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

<sup>1</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2062- --	REFINED CANE SUGAR AND BYPRODUCTS, TOTAL.....		(X)	1,336.9	(X)	1,255.0
	Refined cane sugar:					
	Granulated cane sugar:					
20620 09	Shipped in individual services (small paper packets).....	1,000 s. tons..	37.1	17.2	28.3	13.4
20620 11	Shipped in consumer units (cartons and sacks of 25 pounds or less).....	...do.....	1,874.0	398.4	2,000.7	430.9
20620 13	Shipped in commercial units (bags and other containers more than 25 pounds).....	...do.....	1,227.0	232.5	1,333.8	268.9
20620 15	Shipped in bulk (rail cars, trucks, or bins).....	...do.....	1,326.9	249.0	899.7	180.0
20620 21	Cube and tablet sugar.....	...do.....	( <sup>1</sup> )	( <sup>1</sup> )	24.5	9.2
	Confectioners' powdered sugar:					
20620 31	Shipped in consumer units (containers of 10 pounds or less)...	...do.....	132.5	38.2	126.4	33.3
20620 35	Shipped in commercial units (containers of more than 10 pounds).....	...do.....	205.4	41.9	173.4	36.5
	Soft or brown sugar:					
20620 41	Shipped in consumer units (containers of 10 pounds or less)...	...do.....	111.0	31.0	101.6	27.5
20620 45	Shipped in commercial units (containers of more than 10 pounds).....	...do.....	91.8	18.2	89.0	18.4
	Liquid sugar or sugar sirup:					
20620 53	Sucrose type.....	1,000 s. tons of sugar solids	742.5	134.1	637.7	131.4
20620 56	Invert and/or partially invert type.....	...do.....	790.5	150.3	472.7	96.6
20620 75	Other cane sugar refining products and byproducts, including refiners' blackstrap and sirup.....	1,000 s. tons..	(NA)	14.5	239.8	8.7
20620 00	Refined cane sugar and byproducts, n.s.k. (For companies with 10 or more employees. See Note.).....					
20620 02	Refined cane sugar and byproducts, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	<sup>1</sup> 11.6	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>In 1967 data for product code 20620 21 were included with product code 20620 00 to avoid disclosing figures for individual companies.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2062.--CANE SUGAR REFINING					
	Materials, containers, and supplies, total.....		(X)	1,049.3	(X)	1,022.2
011981	Sugarcane.....		887.6	9.0	(X)	( <sup>1</sup> )
206101	Raw cane sugar (convert to 96° basis).....	1,000 short tons.	6,839.5	982.4	6,200.3	960.2
260091	Paper and paperboard containers and shipping sacks.....	...do.....	(NA)	17.2	80.2	26.2
970099	All other materials, parts, containers, and supplies consumed...		(X)	37.5	(X)	35.8
976000	Materials, parts, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	3.2	(X)	(X)

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>In 1963 data for material code 011981 were included with "All other materials" code 970099.

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This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2062, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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*Current Industrial Reports present data for industries in the following broad categories:*

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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20F-3

## INDUSTRY SERIES

### Beet sugar

SIC Code 2063

## preliminary report

The Beet Sugar Industry includes establishments primarily engaged in manufacturing sugar from sugar beets.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Beet Sugar Industry amounted to \$560.8 million, a decrease of 1 percent compared with 1963. Value added by manufacture at \$209.1 million in 1967 was 4 percent more than value added in 1963. Average employment in the in-

dustry showed an increase of 2 percent from 1963 to a total of 11.5 thousand employees in 1967.

Of the \$560.8 million total value of shipments and other receipts of establishments classified as beet sugar, \$10.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 100 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 100 percent in 1963.

The total value of refined beet sugar products and byproducts shipped by all producers in 1967 was \$550.8 million of which 100 percent, were

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2063.—BEET SUGAR													
1967 Census....	66	61	11.5	68.4	10.1	20.3	56.3	209.1	343.0	560.8	35.7	192.3	100	100
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.8	67.7	10.0	20.2	54.7	220.3	350.8	579.5	17.5	205.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	12.3	67.6	11.0	22.1	57.3	198.5	353.3	531.2	22.0	215.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	12.1	67.8	10.7	23.6	58.1	191.5	380.4	545.8	54.9	191.2	(NA)	(NA)
1963 Census....	65	62	11.3	59.6	10.1	21.4	50.9	200.7	373.5	564.1	38.1	164.2	100	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	10.9	55.3	9.7	20.9	47.1	166.9	296.7	456.4	22.3	159.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	11.1	55.2	9.7	21.3	46.9	144.4	269.5	417.5	17.0	149.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	10.2	52.0	9.0	20.6	44.2	151.8	261.2	409.8	13.1	150.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	10.5	50.0	9.2	20.7	42.2	131.7	264.9	383.5	10.6	144.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	66	66	10.3	49.2	9.0	20.9	41.2	130.4	255.0	392.2	8.0	130.6	100	100

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

shipped by plants classified in industry 2063, Beet Sugar. This percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2063.—BEET SUGAR													
United States, total.....	66	61	11.5	68.4	10.1	20.3	56.3	209.1	343.0	560.8	35.7	11.3	200.7
North Central.....	19	19	2.7	18.4	2.3	5.6	14.7	54.7	83.7	134.8	11.3	2.8	46.7
Mountain.....	28	26	4.5	27.0	4.0	8.1	22.5	82.8	131.6	211.4	8.2	4.7	81.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2063- --	BEET SUGAR, TOTAL.....	1,000 short tons.....	4,577.7	550.8	4,707.0	553.7
20630 --	Refined beet sugar and byproducts.....	...do.....	2,635.7	488.8	2,704.5	485.4
20630 09	Granulated beet sugar:					
20630 11	Shipped in individual services (small paper packets).....	...do.....	2.6	1.3	0.8	0.4
20630 13	Shipped in consumer units (cartons and sacks of 25 pounds or less).....	...do.....	448.9	86.6	453.3	84.4
20630 15	Shipped in commercial units (bags and other containers more than 25 pounds).....	...do.....	782.8	144.0	1,113.6	196.0
20630 21	Shipped in bulk (railcars, trucks, or bins).....	...do.....	1,066.0	193.9	828.4	144.7
20630 31	Cube and tablet sugar.....	...do.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
20630 35	Confectioners' powdered sugar:					
20630 35	Shipped in consumer units (containers of 10 pounds or less)...	...do.....	12.3	2.7	22.4	4.6
20630 51	Shipped in commercial units (containers of more than 10 pounds).....	...do.....	51.3	10.2	75.6	14.2
20630 51	Liquid sugar or sugar sirup:					
20630 55	Sucrose type.....	1,000 short tons of sugar solids.....	208.8	38.4	160.8	32.2
20630 55	Invert and partially invert type.....	...do.....	63.0	11.7	49.6	9.0
20630 71	Other beet sugar factory products and byproducts.....	1,000 short tons.....	1,942.0	62.0	2,002.5	68.3
20630 71	Whole or straighthouse molasses:					
20630 79	Shipped for desugarization.....	...do.....	( <sup>2</sup> )	( <sup>2</sup> )	218.8	6.9
20630 81	Shipped for other uses.....	...do.....	234.0	7.2	154.0	5.9
20630 81	Discard molasses.....	...do.....	358.1	10.9	343.1	11.5
20630 83	Molasses beet pulp.....	...do.....	809.6	33.0	804.2	32.4
20630 85	Dried beet pulp, plain.....	...do.....	239.0	9.1	207.5	7.3
20630 87	Wet beet pulp (estimated dry weight basis).....	...do.....	301.3	1.8	274.9	4.1
20630 00	Beet sugar products, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	-	-	-	-
20630 02	Beet sugar products, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	-	-	-	-

- Represents zero. n.s.k. Not specified by kind.

<sup>1</sup>Data for code 20630 21 are included with code 20630 09 to avoid disclosing data for individual companies.

<sup>2</sup>Data for code 20630 71 are included with code 20630 79 to avoid disclosing data for individual companies.

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(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2063.--BEET SUGAR					
	Materials, containers, and supplies, total.....	.....	(X)	314.0	(X)	342.5
011971	Sugar beets.....	1,000 short tons.	19,305.9	262.4	21,104.3	294.3
260091	Paper and paperboard containers and shipping sacks.....	...do.....	12.8	5.1	22.4	7.3
970099	All other materials, parts, containers, and supplies consumed....	.....	(X)	46.5	(X)	40.9

(X) Not applicable.

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**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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BUREAU OF THE CENSUS  
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20F-4

## INDUSTRY SERIES

### Confectionery, chocolate, and cocoa products SIC Codes 2071 and 2072

**preliminary  
report**

The Candy and Other Confectionery Products Industry includes establishments primarily engaged in manufacturing candy, including chocolate candy, salted nuts, other confections and related products. Establishments primarily engaged in manufacturing solid chocolate bars are classified in industry 2072, and chewing gum in industry 2073. Establishments primarily engaged in manufacturing confectionery for direct sale on the

premises are classified in industry 5441, and those primarily engaged in shelling and roasting nuts are classified in industry 5045.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2071.--CONFECTIONERY PRODUCTS													
1967 Census....	1,185	425	68.0	339.0	57.2	109.4	246.5	862.4	1,020.4	1,871.4	53.0	229.9	97	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	66.6	313.4	55.6	106.5	224.3	756.1	938.8	1,681.5	48.1	214.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	65.3	295.3	54.6	106.2	212.6	721.0	866.8	1,583.1	41.2	195.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	65.6	291.6	54.5	105.2	206.0	691.7	865.9	1,552.6	35.7	192.5	(NA)	(NA)
1963 Census....	1,211	411	63.6	269.7	52.7	102.4	193.0	635.4	824.1	1,454.5	28.1	191.5	95	95
1962 ASM <sup>1</sup> .....	(NA)	(NA)	65.7	275.6	53.0	105.6	192.2	600.3	796.4	1,395.1	29.3	173.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	65.5	266.0	52.9	105.2	187.5	590.6	776.4	1,362.0	22.2	165.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	64.5	253.2	52.0	102.9	176.5	566.3	758.0	1,318.0	22.6	162.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	64.7	243.6	52.4	103.6	170.3	530.8	735.7	1,268.2	22.7	154.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,390	421	66.5	237.0	54.3	104.9	168.3	512.5	727.4	1,229.3	24.9	162.2	96	96
	INDUSTRY 2072.--CHOCOLATE AND COCOA PRODUCTS													
1967 Census....	<sup>3</sup> 34	23	8.4	53.9	6.6	13.4	39.2	196.2	330.3	520.5	9.3	102.1	96	74
1966 ASM <sup>1</sup> .....	(NA)	(NA)	8.1	51.0	6.6	13.4	37.6	179.7	282.6	471.0	21.7	93.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	7.9	47.2	6.4	12.8	34.5	165.6	286.0	452.7	11.9	94.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	8.5	49.5	6.7	13.8	36.3	167.9	302.3	477.4	9.6	109.6	(NA)	(NA)
1963 Census....	28	23	8.7	49.3	7.0	14.0	35.9	184.8	302.7	479.1	8.4	118.4	99	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	8.8	47.6	6.9	14.0	34.2	174.3	288.5	462.0	6.7	124.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	8.8	46.2	6.9	13.9	33.0	168.2	282.3	445.9	5.2	107.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	8.5	42.5	6.7	13.5	31.0	158.1	289.2	450.6	4.4	85.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	8.3	40.0	6.6	13.3	29.2	144.1	304.5	446.5	5.7	83.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	28	25	8.3	38.4	6.5	13.2	27.5	135.1	318.6	447.2	4.1	88.8	98	87

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added for industry 2071 were 1 and 1 and for industry 2072 were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Confectionery Products Industry amounted to \$1,871.4 million, an increase of 28.7 percent compared with 1963. Value added by manufacture at \$862.4 million in 1967 was 35.7 percent more than value added in 1963. Average employment in the industry showed an increase of 6.9 percent from 1963 to a total of 68.0 thousand employees in 1967.

Of the \$1,871.4 million total value of shipments and other receipts of establishments classified as manufacturers of confectionery products, \$48.8 million were products primary to other industries; and \$92.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

The total value of confectionery products shipped by all producers in 1967 was \$1,820.3 million of which \$1,729.9 million, or 95 percent, were shipped by plants classified in industry 2071, Confectionery Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 95 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

The Chocolate and Cocoa Products Industry includes establishments primarily engaged in shelling, roasting, and grinding cocoa beans for the purpose of making chocolate liquor, from which cocoa powder and cocoa butter are derived, and in the further manufacture of solid chocolate bars and chocolate coatings. Establishments primarily engaged in manufacturing products except candy from purchased chocolate and cocoa are classified in industry 2099, and chocolate candies in industry 2071.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Chocolate and Cocoa Products Industry amounted to \$520.5 million, an increase of 8.6 percent compared with 1963. Value added by manufacture at \$196.2 million in 1967 was 6.2 percent more than value added in 1963. Average employment in the industry showed a decrease of 3.4 percent from 1963 to a total of 8.4 thousand employees in 1967.

Of the \$520.5 million total value of shipments and other receipts of establishments classified as manufacturers of chocolate and cocoa products, \$18.7 million were products primary to other industries; and \$3.2 million were receipts for miscellaneous activities. The specialization ratio for the industry, was 96 percent in 1967 and 99 percent in 1963.

The total value of chocolate and cocoa products shipped by all producers in 1967 was \$670.5 million of which \$498.6 million, or 74 percent, were shipped by plants classified in industry 2072, Chocolate and Cocoa Products, while the remainder was shipped by plants classified in other industries. The corresponding coverage ratio in 1963 was 82 percent.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industries 2071 and 2072, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M20C, Confectionery, Including Chocolate Products.



## 1967 CENSUS OF MANUFACTURES

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TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total  (number)	With 20 employees or more (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)						
	INDUSTRY 2071.--CONFECTIONERY PRODUCTS												
United States, total.....	1,185	425	68.0	339.0	57.2	109.4	246.5	862.4	1,020.4	1,871.4	53.0	63.6	635.4
Middle Atlantic.....	328	121	19.6	95.9	16.5	31.0	70.2	250.7	247.5	493.5	(D)	18.8	193.4
New Jersey.....	55	19	3.8	22.9	3.1	5.7	15.5	63.7	66.9	129.1	(D)	3.4	47.1
North Central.....	305	133	24.9	136.3	20.8	41.5	99.3	336.3	401.8	735.8	21.3	22.2	233.3
Indiana.....	13	7	1.3	7.4	1.1	2.3	5.8	18.0	30.0	47.9	1.0	1.1	14.6
Illinois.....	109	61	15.6	93.8	13.0	26.5	67.6	234.6	260.5	489.0	(D)	13.7	159.5
Wisconsin.....	20	8	0.6	2.5	0.5	0.9	1.6	5.6	7.4	13.0	0.3	0.8	6.2
South Atlantic.....	111	42	6.2	27.1	5.2	10.3	19.4	77.0	131.6	208.1	(D)	(D)	(D)
Florida.....	20	5	0.4	1.8	0.4	0.7	1.3	4.2	5.7	10.6	0.3	0.3	2.8
East South Central...	49	11	1.5	6.4	1.3	2.5	4.6	14.1	20.2	34.4	(D)	(D)	(D)
Kentucky.....	12	1	0.1	0.3	0.1	0.1	0.2	0.6	0.5	1.2	(D)	0.1	0.5
Louisiana.....	11	4	0.3	1.2	0.3	0.5	0.9	2.8	2.8	5.6	0.1	0.4	1.8
West.....	224	64	7.2	36.4	6.2	10.9	27.0	87.8	112.6	200.9	2.4	(D)	(D)
Mountain.....	43	8	1.3	4.9	1.1	2.0	3.8	12.3	11.4	23.4	0.5	1.2	8.2
California.....	135	43	4.9	25.7	4.1	7.3	19.4	61.5	90.2	152.6	1.7	4.3	51.2
	INDUSTRY 2072.--CHOCOLATE AND COCOA PRODUCTS												
United States, total.....	34	23	8.4	53.9	6.6	13.4	39.2	196.2	330.3	520.5	9.3	8.7	184.8
Middle Atlantic.....	17	12	6.3	39.7	5.1	10.2	30.2	147.6	227.9	373.3	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
2071- --	CONFECTIONERY PRODUCTS, TOTAL.....	Million lbs..	<sup>1</sup> 4,193.0	<sup>1</sup> 1,820.3	<sup>1</sup> 3,405.4	<sup>1</sup> 1,393.9
20711 00	Bar goods (except solid chocolate).....	...do.....	897.9	358.5	720.3	265.6
20712 01	5-cent and 10-cent specialties.....	...do.....	455.8	210.2	301.7	128.2
20713 00	Package goods (except solid chocolate).....	...do.....	1,223.2	552.5	1,134.7	480.3
20714 00	Bulk goods (except solid chocolate).....	...do.....	465.0	139.3	465.6	132.6
20715 11	Penny goods, including all goods other than bars retailing in units of 4 cents or less.....	...do.....	217.4	67.6	206.3	62.7
20716 --	Salted nuts and other confectionery-type products.....	...do.....	683.3	383.5	502.3	294.0
20716 11	Salted, roasted, cooked, or blanched nuts sold in bulk.....	...do.....	<sup>e</sup> 180.9	90.7	117.6	59.8
20716 21	Cough drops, selling at retail for 10 cents or less per package	...do.....	36.5	21.7	38.3	22.5
20716 31	Canned nutmeats including peanuts.....	...do.....	135.5	90.7	100.0	66.4
20716 51	Other packaged nutmeats including peanuts.....	...do.....	112.5	64.1	137.5	82.0
20716 71	Glaze, candied and crystallized fruits and nuts, n.e.c.....	...do.....	54.2	21.4	43.7	18.4
20716 81-87	Confectionery-type chocolate (solid bars and other molded confections) made from purchased chocolate.....	...do.....	122.5	71.8	59.2	41.3
20716 00	Salted nuts and other confectionery-type products, n.s.k.....	...do.....	<sup>2</sup> 41.2	23.1	<sup>2</sup> 6.0	3.5
20710 00	Candy and other confectionery products, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	<sup>2</sup> 191.2	83.0	<sup>2</sup> 74.4	30.4
20710 02	Candy and other confectionery products, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	<sup>2</sup> 59.2	25.7		
2072- --	CHOCOLATE AND COCOA PRODUCTS, TOTAL.....	...do.....	1,736.5	670.5	1,641.2	573.0
20721 --	Chocolate coatings.....	...do.....	443.6	137.8	470.4	139.6
20721 12	Sweet.....	...do.....	68.1	24.0	100.2	31.8
20721 22	Milk.....	...do.....	235.8	81.9	223.5	72.2
20721 32	Liquor.....	...do.....	18.9	6.6	28.4	9.2
20721 52	Confectionery (cocoa) coatings, including ice cream coatings (made chiefly from cocoa powder and fat other than cocoa butter).....	...do.....	120.8	25.3	118.3	26.3
20722 --	Confectionery-type chocolate and cocoa products (solid bars and other molded confections), total.....	...do.....	498.6	274.1	423.8	221.1
20716 pt.	Made from purchased chocolate.....	...do.....	<sup>3</sup> 117.8	<sup>3</sup> 68.0	59.2	41.3
	Made by chocolate manufacturers.....	...do.....	380.8	206.1	364.6	179.9
20716 81	Bar goods:					
20722 32	Dark chocolate.....	...do.....	22.1	13.9	4.4	2.5
20716 82	Milk chocolate-plain.....	...do.....	108.3	59.5	91.6	45.4
20722 35	Milk chocolate-with nuts <sup>5</sup> .....	...do.....	166.3	96.1	185.4	93.6
20716 84	Package goods.....	...do.....	128.0	71.1	88.2	53.4
20722 42	Other (bulk, etc.).....	...do.....	60.7	27.7	44.4	20.2
20716 87	Molded confections, chocolate type (made from cocoa and fats, other than cocoa butter).....	...do.....	13.2	5.8	9.7	5.8
20722 51						
20728 --	Other chocolate and cocoa products.....	...do.....	748.4	244.9	746.9	212.3
20998 --						
	Made from purchased chocolate.....	...do.....	<sup>4</sup> 172.2	<sup>4</sup> 52.2	<sup>4</sup> 194.2	<sup>4</sup> 51.1
	Made by chocolate manufacturers.....	...do.....	576.2	192.7	552.7	161.2
20998 11	Chocolate (except coatings) for baking, cooking, etc.:					
20728 11	Unsweetened.....	...do.....	49.1	19.0	<sup>r</sup> 30.9	<sup>r</sup> 14.5
20998 21	Sweetened.....	...do.....	135.9	54.0	<sup>r</sup> 83.2	<sup>r</sup> 36.6
20728 21						
20998 61	Cocoa, powdered:					
20728 61	Unsweetened:					
20998 65	In cans or packages of 2-1/2 pounds or less.....	...do.....	126.4	31.6	139.2	34.3
20728 65	In other containers and in bulk (barrels, drums, bags, etc.).....	...do.....				

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
2072- --	CHOCOLATE AND COCOA PRODUCTS--Continued					
20728 --	Other chocolate and cocoa products--Continued					
20998 --						
	Cocoa powdered--Continued:					
	Sweetened or mixed with other substances:					
20988 71	In cans or packages of 2-1/2 pounds or less.....	Million lbs..	168.7	69.7	125.6	37.4
20728 71						
20998 75	In other containers and in bulk (barrels, drums, bags, etc.).....	...do.....	23.6	6.4	52.0	17.0
20728 75						
20728 81	Cocoa butter.....	...do.....	25.3	15.6	26.0	15.4
	Chocolate sirups:					
	Chocolate liquor base:					
20998 92	In cans or packages of 16 ounces or less.....	...do.....	5.8	1.9	12.8	4.3
20728 92						
20998 93	In other containers or in bulk.....	...do.....	61.3	14.5	65.4	14.7
20728 93						
	Cocoa powder base:					
20998 94	In cans or packages of 16 ounces or less.....	...do.....	123.7	22.8	189.6	31.8
20728 94						
20998 96	In other containers or in bulk.....	...do.....	228.6	9.4	222.2	6.4
20728 96						
20998 00	Chocolate and cocoa products, except confectionery type, n.s.k.	...do.....	233.1	10.9	(X)	(X)
20728 00						
20720 00	Chocolate and cocoa products, n.s.k.....	...do.....				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup> From 10 to 30 percent of this figure was estimated. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. <sup>r</sup> Revised.  
(X) Not applicable.

<sup>1</sup> Excludes confectionery-type chocolate made by chocolate manufacturers (see product class 20722) and chocolate coatings and other chocolate and cocoa products.

<sup>2</sup> Quantity estimated based on the reported quantity-value relationship for other products of the product class or industry.

<sup>3</sup> The data for confectionery-type chocolate made from purchased chocolate are included in both product classes, 20716 and 20722.

<sup>4</sup> The data for "other chocolate and cocoa products" made from purchased chocolate are included in both product classes, 20728 and 20998.

<sup>5</sup> Includes an unknown amount of milk chocolate with rice.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
INDUSTRY 2071.--CONFECTIONERY PRODUCTS						
	Materials, containers, and supplies, total.....		(X)	948.0	(X)	765.7
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	13,062.7	130.0	12,718.2	129.3
207211	Chocolate coatings, including cocoa powder composition coatings.....	...do.....	3,506.4	117.6	3,095.8	102.0
012283	Cocoa beans.....	...do.....	180.2	5.7	247.0	6.4
010012	Nuts in shells, including peanuts.....	Million lbs.....	236.5	46.9	255.0	45.4
207163	Nut meats, including peanuts (purchased as such).....	...do.....	520.6	154.8	364.1	109.8
265015	Paperboard containers and converted flexible packaging materials.....		(X)	126.4	(X)	115.2
970099	All other materials, containers, and supplies consumed.....		(X)	242.6	(X)	219.3
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	124.0	(X)	38.1
INDUSTRY 2072.--CHOCOLATE AND COCOA PRODUCTS						
	Materials, containers, and supplies, total.....		(X)	324.9	(X)	298.0
206011	Sugar (cane and beet) in terms of sugar solid.....	1,000 cwt.....	5,595.3	54.9	5,131.8	52.8
012283	Cocoa beans.....	...do.....	5,393.7	132.2	5,782.3	133.0
207211	Chocolate coatings, including cocoa powder composition coatings.....	...do.....	78.6	2.8	37.9	1.5
010012	Nuts in shells, including peanuts.....	Million lbs.....	27.7	12.2	2.0	0.6
207163	Nut meats, including peanuts (purchased as such).....	...do.....			30.2	14.1
265015	Paperboard containers and converted flexible packaging materials.....		(X)	26.1	(X)	26.0
970099	All other materials, containers, and supplies consumed.....		(X)	96.7	(X)	70.1

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2071, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Corresponding figures for small establishments in industry 2072 were 0 percent in each case. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products**--In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture**--This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment**--For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories**--Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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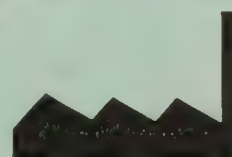
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20F-5

## INDUSTRY SERIES

### Chewing gum

SIC Code 2073

### preliminary report

The Chewing Gum Industry includes establishments primarily engaged in manufacturing chewing gum or chewing gum base.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Chewing Gum Industry amounted to \$303.7 million, an increase of 35 percent compared with 1963. Value added by manufacture at \$190.3 million in 1967 was 40 percent more than value added in 1963. Average employment in the

industry showed an increase of 21 percent from 1963 to a total of 6.8 thousand employees in 1967.

The industry shipments of primary products represented 86 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

The total value of chewing gum shipped by all producers in 1967 was \$271.9 million of which \$258.7 million, or 95 percent, were shipped by plants classified in industry 2073, Chewing Gum, while the remainder was shipped by plants classi-

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2073.--CHEWING GUM													
1967 Census....	23	16	6.8	41.6	5.0	9.7	27.2	190.3	115.1	303.7	13.3	63.6	86	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	6.5	40.8	4.7	9.5	25.1	176.7	110.0	281.7	12.9	59.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	6.1	37.1	4.4	8.4	22.8	158.2	103.2	260.3	6.4	54.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	5.6	32.7	3.9	7.5	18.3	146.1	97.6	241.8	6.7	48.7	(NA)	(NA)
1963 Census....	24	17	5.6	31.0	3.9	7.4	17.8	135.8	89.3	224.8	2.9	45.2	88	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	5.7	30.0	3.9	7.7	17.5	129.7	82.5	212.3	4.4	36.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	5.7	28.6	3.9	7.6	16.6	121.8	82.1	203.9	3.2	36.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	5.7	27.7	3.9	7.5	16.0	117.9	82.6	200.4	3.1	33.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	5.5	26.6	3.8	7.5	15.5	110.6	81.7	192.3	2.6	32.6	(NA)	(NA)
1958 Census <sup>2</sup> ....	27	16	5.6	25.3	3.9	7.6	14.9	104.8	80.0	185.1	3.4	31.5	91	96

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

fied in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

**TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963**

(Geographic data for this industry will not be published separately)



**TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963**

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2073- --	CHEWING GUM, TOTAL.....	Million lbs..	(X)	271.9	329.5	206.8
	Chewing gum and chewing gum base:					
	Chewing gum, not medicated:					
20730 12	Nondietetic.....	...do.....	325.2	236.0	266.0	182.8
20730 13	Dietetic.....	...do.....	3.2	6.8		
20730 15	Chewing gum base.....	...do.....	(NA)	24.3	63.5	24.0
20730 00	Chewing gum, n.s.k. (For companies with more than 10 employees. See Note.).....	.....	(X)	4.8	(X)	(X)
20730 02	Chewing gum, n.s.k. (For companies with less than 10 employees. See Note.).....	.....				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

**TABLE 4. Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2073-...CHEWING GUM					
	Materials, containers, and supplies, total.....		(X)	110.8	(X)	86.3
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	1,754.8	17.4	1,450.9	14.3
265015	Paperboard containers and converted flexible packaging materials..	.....	(X)	15.4	(X)	10.2
970099	All other materials, containers, and supplies consumed.....	.....	(X)	78.0	(X)	61.7

(X) Not applicable.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

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**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

## Malt liquors

SIC Code 2082

preliminary  
report

The Malt Liquors Industry includes establishments primarily engaged in manufacturing all kinds of malt liquors.

Statistics for Establishments primarily engaged in bottling purchased malt liquors are not included in this report.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Malt Liquors Industry amounted to \$2,954.3 million, an increase of 28 percent

compared with 1963. Value added by manufacture at \$1,559.2 million in 1967 was 21 percent more than value added in 1963. Average employment in the industry showed a decrease of 3 percent from 1963 to a total of 60.5 thousand employees in 1967.

Of the \$2,954.3 million total value of shipments and other receipts of establishments classified as manufacturers of malt liquors, \$20.1 million were products primary to other industries; and \$35.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 100 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2082.--MALT LIQUORS													
1967 Census....	188	153	60.5	527.2	40.6	78.1	336.6	1,559.2	1,394.8	2,954.3	140.6	168.3	99	100
1966 ASM <sup>1</sup> .....	(NA)	(NA)	60.5	509.2	40.3	78.5	334.0	1,412.5	1,288.3	2,699.9	168.8	160.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	60.4	488.1	40.6	78.7	310.4	1,360.3	1,139.1	2,497.2	115.4	162.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	61.9	485.6	42.0	80.6	311.4	1,366.2	1,106.5	2,469.8	105.4	153.6	(NA)	(NA)
1963 Census....	222	180	62.6	470.8	42.7	81.9	302.3	1,286.0	1,030.7	2,315.1	86.2	153.3	100	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	66.0	476.8	44.8	86.0	304.8	1,270.5	1,015.0	2,282.0	84.6	150.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	68.2	466.5	46.2	87.5	297.7	1,246.7	955.4	2,200.0	89.9	151.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	69.8	461.7	47.7	90.0	296.8	1,248.3	931.7	2,179.5	75.9	139.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	70.9	461.1	48.0	91.9	292.6	1,200.3	893.7	2,095.4	64.4	146.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	262	228	71.7	443.3	48.0	91.7	280.1	1,116.7	870.4	1,982.7	72.9	138.6	100	100

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

The total value of malt liquors and brewing byproducts shipped by all producers in 1967 was \$2,905.0 million of which \$2,897.9 million, or 100 percent, were shipped by plants classified in industry 2082, Malt Liquors. This percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expend- itures, new	All em- ployees	Value added by manufac- ture
	Total	With 20 employ- ees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2082.--MALT LIQUORS												
United States, total.....	188	153	60.5	527.2	40.6	78.1	336.6	1,559.2	1,394.8	2,954.3	140.6	62.6	1,286.0
New England.....	6	6	1.5	12.0	1.0	2.2	8.0	23.5	27.5	51.1	0.5	1.9	31.9
Middle Atlantic.....	45	37	17.9	160.8	11.4	21.0	93.5	400.2	307.6	706.9	50.0	19.2	365.7
New York.....	15	11	7.5	69.9	4.3	7.3	34.2	160.3	122.5	283.6	8.3	8.1	172.8
New Jersey.....	7	6	5.8	56.7	4.1	7.6	38.1	160.1	129.9	288.4	33.3	6.3	116.5
Pennsylvania.....	23	20	4.6	34.2	3.0	6.1	21.2	79.8	55.2	134.9	8.4	4.8	76.4
East North Central....	52	41	16.7	142.9	11.1	21.7	90.8	401.3	311.9	713.6	23.4	17.7	351.4
Ohio.....	8	7	1.8	14.1	1.1	2.1	8.5	43.7	24.2	67.8	(D)	2.3	40.5
Indiana.....	6	5	1.9	15.1	1.4	2.9	11.4	36.8	33.4	70.1	(D)	1.3	24.2
Illinois.....	11	8	2.2	19.4	1.4	2.8	12.6	55.8	54.1	110.1	1.6	3.0	62.9
Michigan.....	7	5	2.3	21.7	1.6	3.1	13.8	49.3	36.7	86.1	(D)	2.6	44.8
Wisconsin.....	20	16	8.5	72.6	5.5	10.8	44.5	215.8	163.5	379.5	10.0	8.5	179.0
West North Central....	19	16	8.4	73.6	6.6	12.1	58.2	264.3	229.8	494.1	7.6	8.4	184.9
South.....	33	29	8.1	64.4	5.4	11.1	41.6	215.7	220.3	436.8	30.1	7.9	158.2
West South Central..	13	12	4.2	33.1	2.8	6.1	23.3	115.4	118.5	234.9	18.8	3.4	69.6
West.....	33	24	7.9	73.5	5.1	9.9	44.7	254.4	297.7	551.9	29.2	7.6	193.9
California.....	13	10	3.7	34.3	2.8	5.2	24.4	121.1	140.5	261.4	9.4	3.7	90.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value, excluding excise tax (million dollars)	Quantity	Value, excluding excise tax (million dollars)
2082- --	MALT LIQUORS, TOTAL.....	.....	(X)	2,905.0	(X)	2,282.0
20820 --	Malt liquors and brewing byproducts:					
	Case goods, cans:					
	Beer:					
20820 14	12-oz. can.....	1,000 bbl.....	29,150	881.2	22,927	694.1
20820 15	16-oz. can.....	...do.....	8,575	269.8	3,892	110.7
20820 18	Other can sizes.....	...do.....	2,655	85.4	1,852	59.9
20820 19	Ale.....	...do.....	426	15.9	363	10.4
	Case goods, bottles:					
	Beer:					
	Returnable bottles:					
20820 22	Under 12-oz. bottles.....	...do.....	3,890	114.7	4,378	112.8
20820 24	12-oz. bottles.....	...do.....	20,706	509.6	23,177	523.4
20820 27	32-oz. bottles.....	...do.....	3,465	87.2	4,233	89.4
20820 28	All other bottle sizes.....	...do.....	1,891	34.6	2,218	39.4
	Nonreturnable bottles:					
20820 32	Under 12 oz. bottles.....	...do.....	1,799	53.5	1,433	39.8
20820 34	12-oz. bottles.....	...do.....	11,483	314.6	7,437	197.9
20820 37	32-oz. bottles.....	...do.....	3,977	105.3	2,595	62.4
20820 38	All other bottle sizes.....	...do.....	1,353	32.6	555	13.5
20820 41	Ale.....	...do.....	723	23.1	1,030	23.6
	Barrels and kegs:					
	Beer:					
20820 61	One-half barrel size.....	...do.....	14,836	261.1	16,785	243.5
20820 62	Other barrel sizes.....	...do.....	2,165	42.6	1,181	16.3
20820 63	Ale.....	...do.....	185	4.6	206	3.1
20820 71	Porter, stout, and other fermented malt liquors (cans, bottles, barrels, and kegs).....	...do.....	706	23.1	(D)	(D)
20820 81	Bulk transfers of malt beverages to other establishments of the same company.....	...do.....	(D)	(D)	(D)	(D)
20820 91	Malt extract.....	1,000 pounds..	(D)	(D)	(D)	(D)
	Brewers' spent grains:					
20820 93	Dry.....	1,000 short tons.....	283	14.4	262	11.5
20820 95	Wet (dry weight equivalent or actual weight of dry grains employed in the manufacture).....	...do.....	572	6.2	1,461	7.2
20820 00	Malt liquors and brewing byproducts, n.s.k. (For companies with 10 or more employees. See Note).....	.....	(X)	21.0	(X)	3.8
20820 02	Malt liquors and brewing byproducts, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	0.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2082.--MALT LIQUORS					
	Materials, ingredients, containers and supplies, total.....		(X)	1,338.8	(X)	994.6
011311	Barley.....	Million bu.....	2.9	5.6	3.7	7.2
011322	Corn (purchased as grain).....	do.....	19.9	39.5	20.2	35.3
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	373.6	2.5	274.4	2.2
208301	Malt.....	do.....	31,051.1	183.9	27,513.5	157.8
970099	All other materials, containers, and supplies consumed.....		(X)	1,107.3	(X)	792.0

(X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2082, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

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"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

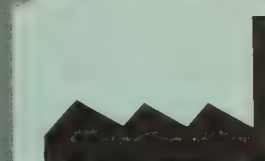
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20G-2

## INDUSTRY SERIES

### Malt

SIC Code 2083

**preliminary  
report**

The Malt Industry includes establishments primarily engaged in manufacturing malt or malt byproducts from barley or other grains.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Malt Industry amounted to \$216.4 million, an increase of 18 percent compared with 1963. Value added by manufacture at \$47.5 million in 1967 was 8 percent more than value

added in 1963. Average employment in the industry showed an increase of 5 percent from 1963 to a total of 2.0 thousand employees in 1967.

The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 100 percent in 1963.

The total value of malt and malt byproducts shipped by all producers in 1967 was \$200.8 million of which 100 percent, was shipped by plants classified in industry 2083, Malt. This

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2083.—MALT													
1967 Census....	43	30	2.0	17.1	1.5	3.1	12.7	47.5	168.5	216.4	7.1	87.8	98	100
1966 ASM <sup>1</sup> .....	(NA)	(NA)	1.8	15.3	1.4	2.8	11.1	48.5	157.5	205.5	4.1	85.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	1.9	15.8	1.4	3.0	11.6	50.6	153.0	204.4	4.4	82.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	2.1	17.2	1.6	3.3	12.5	58.3	160.2	215.5	*4.5	84.9	(NA)	(NA)
1963 Census....	42	31	1.9	15.1	1.5	3.0	10.8	44.0	131.5	183.5	3.0	78.8	100	95
1962 ASM <sup>1</sup> .....	(NA)	(NA)	2.3	17.1	1.7	3.3	11.6	48.6	149.3	190.8	1.6	79.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	2.5	18.5	1.8	3.5	12.2	31.9	164.9	207.5	4.3	74.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	2.7	19.2	2.0	4.0	13.1	40.0	155.8	205.5	*5.6	73.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	2.5	17.2	1.8	3.6	11.5	51.3	153.2	203.3	*7.7	81.7	(NA)	(NA)
1958 Census <sup>2</sup> ....	46	34	2.4	16.3	1.8	3.6	10.9	55.1	138.0	195.3	3.1	73.8	100	95

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

<sup>1</sup>(NA) Not available.

<sup>2</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>3</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

percent, called the coverage ratio, was 95 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms.")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2083.—MALT												
United States, total.....	43	30	2.0	17.1	1.5	3.1	12.7	47.5	168.5	216.4	7.1	1.9	44.0
East North Central....	24	16	1.2	10.3	0.9	1.9	7.8	29.3	104.5	134.3	5.1	1.2	27.2
Wisconsin.....	17	9	0.8	6.9	0.6	1.2	5.1	22.7	76.3	99.5	(D)	0.8	16.5
West North Central....	10	6	0.4	3.4	0.3	0.6	2.6	9.8	31.0	40.6	0.4	0.4	10.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2083- --	MALT, TOTAL.....	Million lbs...	3,818.5	200.8	3,585.1	185.1
	Malt and malt byproducts:					
20830 15	Barley, rye, and wheat malt.....	...do.....	3,544.9	195.4	3,244.9	178.9
20830 41	Malt sprouts (dry weight equivalents; screenings, chaff, and skimmings).....	...do.....	256.5	4.5	329.6	5.6
20830 00	Malt and malt byproducts, n.s.k. (For companies with more than 10 employees. See Note.).....	...do.....	<sup>1</sup> 15.2	0.8	10.6	0.5
20830 02	Malt and malt byproducts, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	<sup>1</sup> 1.9	0.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

<sup>1</sup>Quantity estimated based on quantity-value relationship reported for other products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2083.--MALT					
	Materials, ingredients, containers and supplies, total.....	.....	(X)	152.8	(X)	119.8
011311	Barley.....	Million bushels..	93.6	145.4	79.1	113.3
208301	Malt.....	1,000 cwt.....	490.9	2.7	509.4	2.7
970099	All other materials, containers and supplies consumed.....	.....	(X)	4.7	(X)	3.8

(X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2083, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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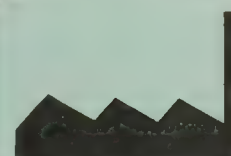
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20G-3

## INDUSTRY SERIES

### Wines, brandy, and brandy spirits

SIC Code 2084

preliminary  
report

The Wines, Brandy, and Brandy Spirits Industry includes establishments primarily engaged in manufacturing wines, brandy, and brandy spirits. This industry also includes bonded storerooms which are engaged in blending wines. Establishments primarily bottling purchased wines, brandy, and brandy spirits, but which do not manufacture wines and brandy, are classified in industry 5095.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Wines, Brandy, and Brandy Spirits Industry amounted to \$404.1 million, an increase

of 11 percent compared with 1963. Value added by manufacture at \$195.6 million in 1967 was 42 percent more than value added in 1963. Average employment in the industry showed an increase of 8 percent from 1963 to a total of 6.6 thousand employees in 1967.

Of the \$404.1 million total value of shipments and other receipts of establishments classified as manufacturers of wines, brandy, and brandy spirits, \$6.6 million were products primary to other industries; and \$9.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials <sup>3</sup>	Value of shipments <sup>3</sup>	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2084.--WINES, BRANDY, AND BRANDY SPIRITS													
1967 Census....	205	56	6.6	46.4	4.2	8.4	24.4	195.6	232.3	404.1	9.6	155.8	98	93
1966 ASM <sup>1</sup> .....	(NA)	(NA)	6.5	44.5	4.2	8.5	23.8	193.4	223.6	400.8	11.8	159.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	6.4	41.8	4.2	8.5	23.2	166.7	263.4	396.2	11.3	144.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	6.4	39.9	4.5	8.9	23.2	159.1	243.5	385.1	*11.8	142.2	(NA)	(NA)
1963 Census....	222	70	6.1	35.1	4.2	8.4	20.5	137.3	228.7	368.3	7.3	120.0	98	99
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*5.4	*33.5	*3.7	*7.8	*18.4	*128.6	*201.9	*337.7	*10.0	*117.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*5.2	*31.6	*3.5	*7.3	*17.2	*120.8	*179.5	*304.5	*6.7	*115.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*5.3	*29.6	*3.7	*7.3	*16.6	*106.0	*170.4	*279.3	*5.1	*109.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	5.3	28.8	3.7	7.5	16.4	107.0	178.6	281.6	4.8	104.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	239	73	5.9	29.0	4.3	8.6	17.7	114.2	160.4	264.0	7.9	100.7	98	97

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Value of products shipped and cost of materials contain extensive duplication. The duplication arises because the products of some establishments are used as materials by other establishments classified in the same industry.

Issued December 1969

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of wines, brandy, and brandy spirits shipped by all producers in 1967 was \$416.5 million of which \$387.8 million, or 93 percent, were shipped by plants classified in industry 2084, Wines, Brandy, and Brandy Spirits, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 99 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND OTHER RELATED DATA

Manufacturers and others processing wines and brandy are licensed by the Internal Revenue Service as wineries, fruit distilleries, bonded wine storerooms, bonded field warehouses, and rectifying plants. Frequently, however, two or more licensed premises are under the same ownership at the same location, but are counted in the census as one establishment. A substantial number of the establishments holding licenses are located on farms, had no employees, are primarily engaged in nonmanufacturing activities, or for other reasons are outside the scope of the census of manufactures. Consequently, the number of licensed premises shown in the annual reports of the Commissioner of Internal Revenue is considerably larger than the number of establishments shown in this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2084.--WINES, BRANDY, AND BRANDY SPIRITS													
United States, total.....	205	58	6.6	46.4	4.2	8.4	24.4	195.6	<sup>1</sup> 232.3	<sup>1</sup> 404.1	9.6	6.1	137.3
Middle Atlantic.....	36	15	1.7	13.9	1.0	2.2	6.1	47.1	49.4	93.8	2.6	1.3	32.3
New York.....	25	12	1.4	11.2	0.8	1.8	5.1	38.1	32.7	69.0	2.5	1.0	24.8
New Jersey.....	11	3	0.4	2.8	0.2	0.4	1.0	9.0	15.9	24.8	0.2	(D)	(D)
East North Central....	20	6	0.5	3.5	0.3	0.6	1.4	15.0	14.8	29.2	0.5	(D)	(D)
South.....	17	4	0.3	1.6	0.1	0.3	0.7	5.2	11.6	16.0	0.4	0.3	2.7
West.....	132	43	4.0	27.3	2.8	5.3	16.2	128.6	157.4	265.2	6.0	(D)	(D)
Pacific.....	132	43	4.0	27.3	2.8	5.3	16.2	128.6	157.4	265.2	6.0	4.2	94.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

<sup>1</sup>Value of products shipped and cost of materials contain extensive duplication. The duplication arised because the products of some establishments are used as materials by other establishments classified in the same industry.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value, excluding excise tax (million dollars)	Quantity	Value, excluding excise tax (million dollars)
2084- --	WINES, BRANDY, AND BRANDY SPIRITS, TOTAL.....	.....	(X)	416.6	(X)	352.6
20840 --	Wines, brandy, and brandy spirits:*	.....	109.2	130.2	67.7	85.2
20840 12	Grape wine 14 percent or less, total.....	Mil. wine gals	38.7	47.7	67.7	85.2
20840 14	White.....	do.....	51.9	60.3		
20840 16	Red.....	do.....	18.6	22.2		
20840 19	Other fruit and berry wines 14 percent or less.....	do.....	4.4	8.3	2.6	4.9
20840 21	Dessert wines (except specialties):	.....	121.4	119.9	128.5	141.9
20840 29	Grape wine, all types.....	do.....	6.3	8.0	2.6	4.0
20840 31	Sparkling wines, natural and carbonated.....	do.....	8.6	40.6	4.8	23.0
20840 41	Specialties:	.....	3.8	6.7	3.9	6.9
20840 43	Vermouth.....	do.....	17.1	23.6	14.4	20.8
20840 61	Beverage brandy.....	Mil. tax gals.	14.6	39.8	8.8	21.4
20840 71	Neutral fruit spirits and neutral brandy.....	do.....	3.7	3.9	7.6	10.8
20840 81	Wine removed from fermenters.....	Mil. wine gals	8.4	(X)	(X)	(X)
20840 85	Brandy and spirits removed from receiving tanks.....	Mil. tax gals.	(D)	(X)	(X)	(X)
20840 00	Wines, brandy, and brandy spirits, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	32.6	(X)	33.8
20840 02	Wines, brandy, and brandy spirits, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	3.0		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

\*Shipping value reported excludes excise taxes. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2084.--WINES, BRANDY, AND BRANDY SPIRITS					
	Materials, ingredients, containers and supplies, total.....	.....	(X)	221.8	(X)	217.6
012241	Grapes.....	1,000 s. tons....	1,508.6	70.4	1,700.6	69.8
208401	Wines purchased for blending.....	Mil. wine gals....	100.0	57.1	56.6	35.3
322102	Glass containers.....	Gross.....	3,117.4	32.8	(X)	(X)
970099	All other materials, containers and supplies consumed.....	.....	(X)	48.1	(X)	112.4
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	.....	(X)	13.4	(X)	(X)

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2084, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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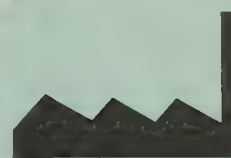
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U.S. DEPARTMENT OF COMMERCE



# 1967 CENSUS OF MANUFACTURES

MCG7(P)-20G-4



## INDUSTRY SERIES

### Distilled liquor, except brandy

SIC Code 2085

**preliminary  
report**

The Distilled, Rectified, and Blended Liquors, Industry includes establishments primarily engaged in manufacturing alcoholic liquors by distillation and rectification, and in manufacturing cordials and alcoholic cocktails by blending processes or by mixing liquors and other ingredients. Establishments primarily engaged in manufacturing industrial alcohol are classified in industry 2818, and those only bottling purchased liquors in industry 5095.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Distilled Liquor, Except Brandy, Industry amounted to \$1,364.2 million, an increase of 25 percent compared with 1963. Value added by manufacture at \$736.8 million in 1967 was 18 percent more than value added in 1963. Average employment in the industry showed an increase of 8 percent from 1963 to a total of 19.4 thousand employees in 1967.

Of the \$1,364.2 million total value of shipments and other receipts of establishments classified as manufacturers of distilled liquor, except brandy, \$26.5 million were products primary to other industries; and \$108.2 million were receipts for

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2085.--DISTILLED LIQUOR, EXCEPT BRANDY													
1967 Census....	112	95	19.4	141.7	15.5	31.8	104.0	736.8	639.3	1,364.2	26.9	791.2	98	99
1966 ASM <sup>1</sup> .....	(NA)	(NA)	19.0	130.0	15.2	30.1	94.5	723.1	610.7	1,331.6	32.2	747.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	18.9	125.7	14.9	29.7	91.4	712.7	577.8	1,288.2	23.4	712.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	17.8	115.6	14.2	28.0	84.1	660.2	474.7	1,133.8	13.5	707.1	(NA)	(NA)
1963 Census....	107	89	18.0	110.2	14.3	28.1	80.2	623.7	466.9	1,090.5	15.5	682.0	98	99
1962 ASM <sup>1</sup> .....	(NA)	(NA)	18.7	113.3	14.5	30.6	80.4	464.5	483.3	946.0	19.8	680.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	19.0	110.3	14.9	31.3	78.0	464.5	475.5	937.9	14.5	673.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	20.2	110.0	15.9	33.5	79.1	463.5	464.7	927.1	15.9	552.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	20.3	106.8	16.3	33.1	78.2	487.6	478.3	959.2	11.6	580.6	(NA)	(NA)
1958 Census <sup>2</sup> ....	122	91	20.5	102.6	16.6	32.2	73.9	458.2	482.8	941.3	9.9	592.9	98	100

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

The total value of distilled liquor, except brandy, shipped by all producers in 1967 was \$1,244.3 million of which \$1,229.5 million, or 99 percent, were shipped by plants classified in industry 2085, Distilled Liquor, Except Brandy,

while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 99 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2085.--DISTILLED LIQUOR, EXCEPT BRANDY													
United States, total.....	112	95	19.4	141.7	15.5	31.8	104.0	736.8	639.3	1,364.2	26.9	18.0	623.7
Pennsylvania.....	7	7	1.6	10.8	1.3	2.4	6.6	37.6	63.4	99.6	1.3	1.7	46.0
East North Central...	15	14	6.0	46.7	5.0	10.4	37.8	233.6	211.4	443.5	9.2	(D)	(D)
West North Central...	5	5	0.3	2.6	0.2	0.5	1.6	9.2	12.5	21.6	0.2	(D)	(D)
South.....	48	45	8.7	62.7	7.1	14.7	46.2	349.4	247.4	588.3	14.3	7.9	272.1
Kentucky.....	36	34	6.8	47.4	5.5	11.1	35.4	260.5	189.8	448.7	(D)	5.3	210.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value excluding excise tax (million dollars)	Quantity	Value excluding excise tax (million dollars)
2085- --	DISTILLED, RECTIFIED AND BLENDED LIQUORS, EXCEPT BRANDY, TOTAL.....		(X)	1,244.3	(X)	959.9
20851 --	Distilled liquors, except brandy.....		(X)	202.3	(X)	163.0
	Products of distilleries and industrial alcohol plants:					
	Whiskey (raw):					
20851 11	Bourbon.....	1,000 proof gal.....	123,005	113.8	91,214	83.2
20851 15	Rye.....	do.....	5,129	4.7	5,099	4.2
20851 19	Other.....	do.....	10,948	7.0	12,813	7.4
20851 31	Spirits (except fruit).....	do.....	112,655	40.0	114,087	39.8
20851 49	Other distilled liquors, including gin.....	do.....	33,327	14.2	20,663	8.2
20851 61	Distillers' dried grains, dark and light.....	1,000 short tons.....	362	18.9	275	14.1
20851 71	Distillers' dried solubles.....	do.....	52	3.7	73	6.0
20853 --	Bottled liquors, except brandy.....		(X)	1,039.0	(X)	796.6
	Rectified products:					
	Whiskey:					
20853 12	Blends of whiskies.....	1,000 wine gal.....	2,560	11.3	1,138	3.9
20853 15	Blends with neutral spirits.....	do.....	74,074	274.4	73,808	270.9
20853 19	Other whiskey.....	do.....				
20853 21	Gin.....	do.....	1,969	6.0	1,017	2.2
20853 31	Cordials, liqueurs, cocktails, and similar compounds.....	do.....	21,627	76.6	12,809	42.2
20853 33	Vodka.....	do.....	16,296	42.0	6,444	14.7
20853 35	Other rectified products.....	do.....	2,006	8.9	2,601	10.8
	Unrectified products:					
20853 51	Whiskey.....	do.....	79,906	399.7	67,305	285.0
20853 55	Gin.....	do.....	29,682	68.2	24,019	55.4
20853 57	Vodka.....	do.....	20,785	72.2	13,768	52.4
20853 59	Other unrectified products.....	do.....	4,164	23.8	2,758	8.1
	Bottled in bond:					
20853 63	Whiskey.....	1,000 proof gal.....	6,893	43.2	7,604	48.2
20853 81	Other.....	do.....	(NA)	12.7	764	2.9
20853 00	Bottled liquors, n.s.k.....		(X)	(X)	(X)	(Z)
20850 00	Distilled, rectified and blended liquors, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	2.5	(X)	0.4
20850 02	Distilled, rectified and blended liquors, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	0.5	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable. (Z) Less than \$0.1 when rounded.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2085. --DISTILLED LIQUOR, EXCEPT BRANDY					
	Materials, ingredients, containers and supplies, total.....		(X)	566.2	(X)	406.8
	Materials used in distilling:					
011321	Corn.....	Million bu.....	33.1	48.2	32.1	42.2
011351	Rye.....	do.....	5.6	8.7	5.9	9.5
208301	Malt.....	1,000 cwt.....	2,520.8	13.1	1,941.8	9.9
970001	All other materials, ingredients, containers and supplies used in distilling operations (cooperage, etc.).....		(X)	64.2	(X)	55.0
	Materials used in bottling:					
208511	Neutral spirits.....	Million tax gals.	233.7	85.5	134.7	50.0
208513	Aged whiskey.....	do.....	87.9	140.5	67.4	106.4
322101	Glass containers.....	1,000 gross.....	12,385.1	113.6	10,457.2	85.4
970002	All other materials, ingredients, containers and supplies used in bottling operations (flavors, closures, etc.).....		(X)	68.1	(X)	44.8
976000	Materials, n.s.k.....		(X)	24.2	(X)	3.4

n.s.k. Not specified by kind.

(X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2085, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

POSTAGE AND FEES PAID  
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20G-5

## INDUSTRY SERIES

**preliminary  
report**

### Bottled and canned soft drinks

SIC Code 2086

The Bottled and Canned Soft Drinks and Carbonated Waters Industry includes establishments primarily engaged in manufacturing soft drinks (nonalcoholic beverages) and carbonated waters. Establishments primarily engaged in manufacturing fruit and vegetable juices are classified in group 203, fruit sirups for flavoring in industry 2087, and cider in industry 2099. Establishments primarily engaged in bottling natural spring waters are classified in industry 5049.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and

miscellaneous receipts of establishments classified in the Bottled and Canned Soft Drinks Industry amounted to \$3177.5 million, an increase of 43.7 percent compared with 1963. Value added by manufacture at \$1681.4 million in 1967 was 36.3 percent more than value added in 1963. Average employment in the industry showed an increase of 15.5 percent from 1963 to a total of 123.4 thousand employees in 1967.

Of the \$3177.5 million total value of shipments and other receipts of establishments classified as manufacturers of soft drinks, \$37.2 million were products primary to other industries; and \$214.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms.")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2086.--BOTTLED AND CANNED SOFT DRINKS														
1967 Census....	3,403	1,694	123.4	727.1	46.7	95.3	219.2	1,681.4	1,508.8	3,177.5	168.2	187.0	99	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	117.7	667.1	43.7	93.8	201.1	1,470.8	1,273.3	2,734.9	151.1	144.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	113.9	614.4	42.1	90.1	182.7	1,372.7	1,137.3	2,505.4	111.0	127.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	111.1	582.6	41.0	89.2	172.8	1,387.8	1,027.8	2,408.8	110.8	128.5	(NA)	(NA)
1963 Census....	3,905	1,530	106.8	537.7	40.9	86.9	164.7	1,233.6	981.5	2,210.9	100.8	125.0	98	95
1962 ASM <sup>1</sup> .....	(NA)	(NA)	105.4	515.3	41.4	92.9	158.3	1,127.9	902.7	2,030.9	81.4	119.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	104.1	485.4	40.9	89.5	149.2	1,060.8	845.1	1,911.4	69.4	111.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	103.3	465.4	41.1	89.4	144.3	1,006.0	801.1	1,806.1	76.4	106.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	100.0	433.6	40.2	83.7	135.8	954.0	757.2	1,714.4	66.0	99.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	4,394	1,421	97.1	405.6	39.5	80.0	131.4	862.5	698.3	1,558.3	64.2	99.5	98	98

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

The total value of soft drinks and carbonated waters shipped by all producers in 1967 was \$3026.7 million of which \$2925.4 million, or 97 percent, were shipped by plants classified in industry 2086, Bottled and Canned Soft Drinks, while the remainder was shipped by plants

classified in other industries. This percent, called the coverage ratio, was 95 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2086.--BOTTLED AND CANNED SOFT DRINKS													
United States, total.....	3,403	1,694	123.4	727.1	46.7	95.3	219.2	1,681.4	1,508.8	3,177.5	168.2	106.8	1,233.6
New England.....	234	78	6.2	36.7	2.6	5.2	11.9	82.1	86.5	167.9	8.1	5.4	64.5
Massachusetts.....	94	29	3.1	19.4	1.3	2.7	6.3	43.5	48.4	91.3	4.1	2.4	28.2
Rhode Island.....	24	5	0.4	2.5	0.2	0.3	0.7	5.4	4.6	10.0	(D)	(D)	(D)
Connecticut.....	52	19	1.3	7.7	0.5	1.0	2.4	18.7	15.8	34.4	1.4	1.3	18.1
Middle Atlantic.....	515	207	17.1	111.0	7.2	14.6	39.5	260.1	265.8	522.9	26.7	15.6	201.4
New York.....	208	82	7.5	50.0	3.4	6.9	19.9	124.4	127.8	251.1	11.2	(D)	(D)
New Jersey.....	90	39	3.2	21.2	1.2	2.4	6.6	47.7	54.3	100.6	6.3	2.3	33.8
Pennsylvania.....	217	86	6.4	39.9	2.7	5.2	13.0	88.0	83.7	171.2	9.2	(D)	(D)
East North Central....	568	279	24.0	158.8	9.5	19.1	48.2	343.2	306.0	647.1	36.1	19.0	234.7
Ohio.....	127	76	6.8	44.8	2.7	5.5	13.6	95.6	81.3	176.3	10.9	5.5	67.1
Indiana.....	97	54	3.9	23.6	1.6	3.3	7.5	52.8	49.4	101.5	9.1	(D)	(D)
Illinois.....	146	63	6.3	45.3	2.3	4.8	13.1	94.2	84.8	178.2	8.1	5.2	68.8
Michigan.....	86	49	4.7	31.2	2.0	4.0	9.8	71.0	62.9	133.8	5.5	3.4	19.5
Wisconsin.....	112	37	2.3	13.9	0.8	1.6	4.2	29.6	27.6	57.3	2.5	(D)	(D)
West North Central....	314	147	9.5	56.9	3.9	7.8	16.9	128.0	96.2	223.5	11.2	8.3	90.7
Minnesota.....	70	30	1.9	11.6	0.8	1.5	3.8	25.3	21.1	46.3	3.1	1.5	17.3
Missouri.....	91	42	3.6	23.7	1.4	2.8	6.4	51.3	33.4	84.5	2.8	3.3	38.3
North Dakota.....	12	6	0.2	1.3	0.1	0.2	0.4	2.9	2.2	5.1	0.2	0.3	2.6
South Atlantic.....	596	385	25.4	132.0	8.6	18.7	35.2	308.4	289.1	596.3	29.3	23.0	231.3
Maryland.....	41	29	2.7	16.6	0.9	2.2	4.6	42.2	42.2	84.2	3.6	2.5	30.3
Virginia.....	77	57	3.8	20.5	1.2	2.8	5.0	50.1	44.2	94.0	5.1	3.5	38.5
Florida.....	121	68	4.8	24.3	1.7	3.6	6.9	62.3	61.2	123.3	5.9	4.2	37.3
East South Central....	330	184	11.6	57.8	4.1	8.5	16.2	129.2	112.0	240.3	11.8	10.0	96.7
Kentucky.....	72	37	2.7	15.0	1.1	2.3	4.3	34.6	34.0	68.1	3.9	(D)	(D)
Tennessee.....	92	55	3.8	19.5	1.2	2.5	5.3	41.5	33.8	75.0	3.1	(D)	(D)
West South Central....	409	211	15.5	76.6	5.5	11.1	21.3	179.6	132.7	311.4	21.4	13.5	127.5
Arkansas.....	60	30	1.8	8.2	0.7	1.4	2.5	18.9	13.4	32.2	(D)	1.7	15.6
Louisiana.....	66	39	3.0	14.6	1.0	2.0	4.0	37.4	26.5	63.6	(D)	2.7	22.4
Oklahoma.....	64	28	1.8	9.3	0.7	1.3	2.7	21.7	14.2	35.9	(D)	1.5	16.6
Texas.....	219	114	8.9	44.4	3.1	6.4	12.2	101.7	78.6	179.7	11.9	7.6	72.9
West.....	437	203	14.1	97.3	5.3	10.3	30.0	250.8	220.5	468.1	22.7	12.0	186.8
Wyoming.....	12	2	0.1	0.7	0.1	0.1	0.2	1.6	1.3	2.8	0.3	0.2	1.3
Colorado.....	37	18	1.1	6.4	0.5	1.0	2.3	14.1	12.2	26.0	2.1	(D)	(D)
Nevada.....	7	5	0.2	1.7	0.1	0.2	0.5	4.1	3.4	7.5	(D)	0.2	2.5
California.....	161	85	7.1	54.5	2.4	4.6	15.7	153.7	139.6	291.1	12.3	6.1	116.4
Hawaii.....	20	8	0.5	2.5	0.2	0.4	0.8	5.4	4.9	10.3	(D)	(NA)	(NA)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals. (NA) Not available.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2086- --	SOFT DRINKS AND CARBONATED WATERS, TOTAL.....	.....	<sup>1</sup> 1,762,217	3,026.7	<sup>1</sup> 1,463,565	2,136.1
	Bottled carbonated soft drinks, all sizes, total.....	1,000 cases...	1,208,314	2,026.5	1,182,367	1,657.3
	Nondietetics:					
20860 X1	Drinks, containing kola extract.....	...do.....	688,607	1,143.0	668,210	927.3
20860 X2	Orange.....	...do.....	50,609	82.0	56,192	76.2
20860 X3	Lemon, lime, and lemon and lime combination.....	...do.....	118,627	207.3	139,535	196.9
20860 X4	Root beer and sarsaparilla.....	...do.....	31,723	51.4	28,691	41.0
20860 X5	Ginger ale.....	...do.....	39,202	71.1	45,546	68.6
20860 X6	Grape.....	...do.....	23,119	36.7	26,262	35.3
20860 X8	Other carbonated flavors.....	...do.....	<sup>2</sup> 138,314	<sup>2</sup> 228.9	<sup>2</sup> 128,376	<sup>2</sup> 184.8
20860 X9	Dietetics all flavors.....	...do.....	118,113	206.1	51,150	78.8
20860 X0	Flavor not specified.....	...do.....	( <sup>2</sup> )	( <sup>2</sup> )	38,405	48.2
20860 --	Bottled and canned soft drinks:					
	Cases of 24 bottles:					
	6 to 9 oz. bottled carbonated soft drinks.....	.....	286,814	435.4	411,755	523.5
	Nondietetics:					
20860 Q1	Drinks, containing kola extract.....	1,000 cases...	198,741	297.3	256,754	328.1
20860 Q2	Orange.....	...do.....	7,661	11.7	14,568	18.6
20860 Q3	Lemon, lime, and lemon and lime combination.....	...do.....	32,095	50.6	60,870	77.1
20860 Q4	Root beer and sarsaparilla.....	...do.....	4,114	6.3	6,843	8.6
20860 Q5	Ginger ale.....	...do.....	8,540	13.7	14,435	19.2
20860 Q6	Grape.....	...do.....	3,370	5.1	7,264	8.9
20860 Q8	Other carbonated flavors, including carbonated water and club soda.....	...do.....	24,825	37.4	34,657	44.6
20860 Q9	Dietetics, all flavors.....	...do.....	7,468	13.3	2,652	3.0
20860 Q0	Flavor not specified.....	...do.....	( <sup>3</sup> )	( <sup>3</sup> )	13,712	15.4
	10 to 12 oz. bottled carbonated soft drinks.....	.....	595,839	977.2	519,733	720.9
	Nondietetics:					
20860 11	Drinks, containing kola extract.....	...do.....	325,835	534.1	314,866	439.3
20860 12	Orange.....	...do.....	30,335	47.6	31,000	41.0
20860 13	Lemon, lime, and lemon and lime combination.....	...do.....	59,720	101.5	54,037	76.2
20860 14	Root beer and sarsaparilla.....	...do.....	17,821	28.0	14,150	19.9
20860 15	Ginger ale.....	...do.....	8,730	15.0	8,601	10.5
20860 16	Grape.....	...do.....	14,448	22.3	14,634	19.6
20860 18	Other carbonated flavors, including carbonated water and club soda.....	...do.....	72,566	118.5	47,919	67.4
20860 19	Dietetics, all flavors.....	...do.....	66,384	110.2	20,021	27.4
20860 20	Flavor not specified.....	...do.....	( <sup>3</sup> )	( <sup>3</sup> )	14,505	19.6
	16 oz. bottled carbonated soft drinks.....	.....	197,044	376.7	120,673	200.6
	Nondietetics:					
20860 21	Drinks, containing kola extract.....	...do.....	131,063	248.9	75,193	123.2
20860 22	Orange.....	...do.....	4,794	9.0	3,145	5.2
20860 23	Lemon, lime, and lemon and lime combination.....	...do.....	9,241	19.2	6,140	11.0
20860 24	Root beer and sarsaparilla.....	...do.....	2,958	5.7	1,770	2.9
20860 25	Ginger ale.....	...do.....	1,265	2.6	1,512	2.2
20860 26	Grape.....	...do.....	2,735	5.1	1,740	2.8
20860 28	Other carbonated flavors, including carbonated water and club soda.....	...do.....	9,791	18.0	4,340	6.9
20860 29	Dietetics, all flavors.....	...do.....	35,197	68.2	23,047	40.4
20860 30	Flavor not specified.....	...do.....	( <sup>3</sup> )	( <sup>3</sup> )	3,786	6.1
	Cases of 12 bottles:					
	24 to 32 oz. bottled carbonated soft drinks.....	.....	120,523	228.2	119,895	197.7
	Nondietetics:					
20860 31	Drinks, containing kola extract.....	...do.....	32,968	62.7	21,397	36.7
20860 32	Orange.....	...do.....	7,819	13.7	7,479	11.4
20860 33	Lemon, lime, and lemon and lime combination.....	...do.....	17,571	36.0	18,488	32.6
20860 34	Root beer and sarsaparilla.....	...do.....	6,830	11.4	5,928	9.5
20860 35	Ginger ale.....	...do.....	20,667	39.8	20,998	36.7
20860 36	Grape.....	...do.....	2,566	4.2	2,624	4.0
20860 38	Other carbonated flavors, including carbonated water and club soda.....	...do.....	25,147	48.3	31,149	51.5
20860 39	Dietetics, all flavors.....	...do.....	6,955	12.1	5,430	8.1
20860 40	Flavor not specified.....	...do.....	( <sup>3</sup> )	( <sup>3</sup> )	6,402	7.2

See footnotes at end of table.

## 1967 CENSUS OF MANUFACTURES

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
	SOFT DRINKS AND CARBONATED WATERS--Continued					
	Bottled carbonated soft drinks, all sizes--Continued					
	All other size bottled carbonated soft drinks.....		8,094	9.0	10,311	14.5
20860 41	Nondietetics.....	do.	5,985	6.7	5,256	7.4
20860 43	Dietetics.....	do.	2,109	2.3	974	1.4
20860 50	Nondietetics or dietetics not specified.....	do.	( <sup>3</sup> )	( <sup>3</sup> )	4,081	5.7
	Canned carbonated soft drinks (10 and 12 oz. cans, cases of 24)		199,927	390.4	65,482	116.8
	Nondietetics.....		172,427	336.1	56,463	101.0
20860 51	Drinks containing kola extract.....	do.	79,437	167.2	56,463	101.0
20860 52	Orange.....	do.	18,651	33.3		
20860 53	Lemon, lime, lemon and lime combinations.....	do.	17,804	36.1		
20860 55	Ginger ale.....	do.	8,276	13.8		
20860 56	Grape.....	do.	11,894	19.9		
20860 58	Other carbonated flavors, including carbonated water and club soda.....	do.	36,365	65.8		
20860 59	Dietetics, all flavors.....	do.	27,500	54.3	9,019	15.8
	Soft drinks in bulk.....	1,000 gals..	<sup>1</sup> 150,826	133.1	<sup>1</sup> 84,142	77.2
20860 81	Drinks containing kola extract.....	do.	<sup>1</sup> 100,631	88.1	<sup>1</sup> 84,142	77.2
20860 87	Other flavors.....	do.	<sup>1</sup> 50,195	45.0		
	Fruit drinks and ades.....	1,000 cases..	67,290	157.0	57,021	135.7
20860 92	40.1 oz. to 60 oz. cases of 12, No. 3 cyl.....	do.	40,741	102.6	16,733	49.9
20860 94	Orange.....	do.	17,477	37.4	16,733	49.9
	Other flavors.....	do.	23,264	65.2		
	Other sizes.....		26,549	54.4	40,288	85.8
20860 95	Orange.....	do.	12,193	27.3	40,288	85.8
20860 97	Other flavors.....	do.	14,356	27.1		
20860 00	Soft drinks and fruit drinks and ades n.s.k. (For companies with 10 or more employees. See Note.).....		159,063	273.2	<sup>4</sup> 102,600	<sup>4</sup> 149.2
20860 02	Soft drinks and fruit drinks and ades n.s.k. (For companies with less than 10 employees. See Note.).....		<sup>3</sup> 27,073	<sup>3</sup> 46.5		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

<sup>1</sup>Includes an estimate for the number of cases of soft drinks sold in bulk assuming 1.5 gallons equals 1 case.

<sup>2</sup>Includes product code 20860 41, Nondietetic bottled carbonated soft drinks, all other sizes.

<sup>3</sup>Establishments whose operations were small reported data by bottle size only for 1963 but not for 1967. 1967 data for such establishments are included under code 20860 02.

<sup>4</sup>Includes 7,338 thousand cases of still soft drinks (all sizes) valued at 10.0 million dollars; such data were not requested separately in 1967. Separate figures on orange flavor and other still flavors are shown in the 1963 report.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2086.--BOTTLED AND CANNED SOFT DRINKS					
	Materials, ingredients, containers and supplies, total.....	.....	(X)	1,342.8	(X)	873.0
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	18,233.2	183.9	14,448.7	153.7
203348	Concentrated fruit juice products.....	Million gals.....	44.6	35.6	( <sup>2</sup> )	( <sup>1</sup> )
208731	Flavoring sirups.....	..do.....	181.8	281.7	161.2	261.0
208701	Other flavors, including beverage bases.....	.....	(X)	104.7	(X)	58.5
970090	All other materials, ingredients, containers and supplies.....	.....	(X)	594.1	(X)	265.3
976000	Materials, n.s.k.....	.....	(X)	<sup>2</sup> 142.8	(X)	134.4

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Included under code 976000.<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this included estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2086, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-20G-6

## INDUSTRY SERIES

**preliminary  
report**

### Flavoring extracts and sirups, n.e.c.

SIC Code 2087

The Flavoring Extracts and Flavoring Sirups, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing flavoring extracts, sirups, and fruit juices, not elsewhere classified, for soda fountain use or for the manufacture of soft drinks, and colors for bakers' and confectioners' use. Establishments primarily engaged in manufacturing chocolate sirup are classified in industry 2072 if from cacao beans and in industry 2099 if from purchased chocolate.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Flavoring Extracts and Sirups, N.E.C., Industry amounted to \$1,029.6 million, an increase of 41 percent compared with 1963. Value added by manufacture at \$592.6 million in 1967 was 48 percent more than value added in 1963. Average employment in the industry showed an increase of 11 percent from 1963 to a total of 10.1 thousand employees in 1967.

Of the \$1,029.6 million total value of shipments and other receipts of establishments classified as manufacturers of flavoring extracts and sirups, \$66.4 million were products primary to other industries; and \$75.3 million were receipts for

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2087.--FLAVORING EXTRACTS AND SIRUPS, N.E.C.													
1967 Census....	3433	112	10.1	75.3	5.8	11.7	34.2	592.6	441.4	1,029.6	17.5	116.4	93	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	10.6	70.8	5.9	11.7	31.3	555.5	422.0	974.4	23.6	109.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	9.4	62.8	5.0	10.1	25.7	487.5	352.9	836.5	14.8	97.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	9.4	63.5	5.2	11.5	27.8	448.2	383.4	833.1	*12.2	98.3	(NA)	(NA)
1963 Census....	520	97	9.1	56.6	5.0	10.2	25.1	400.2	334.0	729.7	12.3	104.2	90	79
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*9.6	*56.4	*5.4	*11.4	*24.6	*374.1	*288.5	*661.3	*24.1	*76.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*9.5	*53.5	*5.4	*11.1	*23.5	*335.0	*264.2	*559.3	*10.0	*77.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*9.5	*51.2	*5.3	*10.8	*22.9	*306.9	*243.2	*548.3	*10.4	*71.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	9.5	52.2	5.5	11.6	23.4	284.7	250.3	535.2	*6.6	66.6	(NA)	(NA)
1958 Census <sup>2</sup> ...	534	97	9.3	47.5	5.3	10.3	22.0	249.4	224.9	477.1	5.4	71.1	90	83

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary****Rocco C. Siciliano, Under Secretary****Harold C. Passer, Assistant Secretary for Economic Affairs****BUREAU OF THE CENSUS George Hay Brown, Director**

miscellaneous activities. The industry shipments of primary products represented 93 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

The total value of flavoring extracts and sirups shipped by all producers in 1967 was \$1,035.6 million of which \$886.2 million, or 86 percent, were shipped by plants classified in industry 2087, Flavoring Extracts and Sirups, N.E.C.,

while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 79 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2087.--FLAVORING EXTRACTS AND SIRUPS, N.E.C.													
United States, total.....	433	112	10.1	75.3	5.8	11.7	34.2	592.6	441.4	1,029.6	17.5	9.1	400.2
New England.....	41	7	0.4	2.4	0.2	0.5	0.9	8.6	10.0	18.6	0.2	0.4	6.9
Massachusetts.....	22	4	0.3	1.7	0.1	0.3	0.5	4.8	5.2	10.1	0.1	0.2	4.0
Middle Atlantic.....	130	37	3.0	22.6	1.7	3.4	10.7	133.4	150.0	282.0	2.7	2.7	93.9
New York.....	71	20	1.9	14.5	1.0	2.0	6.5	79.8	104.8	183.4	0.8	1.7	60.5
New Jersey.....	33	8	0.8	5.5	0.5	1.1	3.2	46.0	36.2	82.1	1.5	0.6	29.4
Pennsylvania.....	26	9	0.4	2.6	0.2	0.4	1.1	7.6	8.9	16.5	0.4	0.3	4.0
East North Central....	91	27	3.0	23.2	2.0	4.0	12.1	187.5	116.2	302.0	5.6	2.3	97.9
Illinois.....	42	16	2.1	16.7	1.5	3.1	9.3	163.2	94.5	256.5	4.0	1.8	87.9
Michigan.....	18	4	0.1	1.2	0.1	0.1	0.4	3.0	3.4	6.2	0.1	(D)	(D)
West North Central....	30	5	0.5	3.6	0.4	0.7	2.3	25.5	22.2	47.3	0.7	0.6	26.5
South.....	85	22	2.3	16.5	1.1	2.1	5.6	190.1	109.1	298.4	6.8	2.3	140.4
West.....	56	14	0.9	6.9	0.4	0.9	2.7	47.5	33.9	81.4	1.6	0.8	34.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2087- --	FLAVORING EXTRACTS AND SIRUPS, N.E.C., TOTAL.....		(X)	1,035.6	(X)	790.3
20871 --	Flavoring extracts, emulsions, and other liquid flavors.....		(X)	95.0	(X)	99.3
	Natural or true:					
20871 11	In containers of 8 ounces or less.....	Million gal...	( <sup>1</sup> )	13.1	1.5	19.0
20871 15	In containers of more than 8 ounces.....	...do.....	( <sup>1</sup> )	39.4	4.7	34.0
	Imitation:					
20871 51	In containers of 8 ounces or less.....	...do.....	( <sup>1</sup> )	1.8	0.8	4.5
20871 55	In containers of more than 8 ounces.....	...do.....	( <sup>1</sup> )	30.1	5.4	24.2
20871 00	Flavoring extracts, emulsions, and other liquid flavors, n.s.k..		(X)	10.6	(X)	17.6
20872 --	Liquid beverage bases, not for use by soft drink bottlers.....	Million gal...	78.5	130.2	32.0	76.1
20872 23	Containing kola extract or flavoring.....	...do.....	13.0	25.1	11.6	27.8
20872 15	Cocktail mixes.....	...do.....	2.8	8.4		
20872 25	All other flavors.....	...do.....	61.1	94.1	20.2	47.8
20872 00	Liquid beverage bases, n.s.k.....	...do.....	<sup>2</sup> 1.6	2.6	0.2	0.6
20873 --	Flavoring sirups for use by soft drink bottlers.....	...do.....			308.3	298.7
20873 13	Containing kola extracts or flavoring.....	...do.....	235.8	353.0	265.6	249.4
20873 39	All other flavors.....	...do.....			41.6	48.3
20873 00	Flavoring sirups for use by soft drink bottlers, n.s.k.....	...do.....			1.0	1.0
20874 --	Other flavoring agents (except chocolate sirups).....		(X)	409.3	(X)	299.1
	Flavoring powders and tablets:					
20874 35	Soft drinks (effervescent and noneffervescent).....	Million lbs...	37.7	89.9	98.9	79.6
20874 39	Other flavoring powders and tablets.....	...do.....	114.6	77.7		
20874 41	Flavoring pastes.....	...do.....	24.5	9.6	19.6	6.9
20874 59	Flavoring sirups for fountain, ice cream, home beverage use, all flavors.....	Million gal...	98.5	182.5	87.9	136.6
20874 61	Fruit, crushed or whole for fountain and ice cream use.....	...do.....	8.0	23.0	5.6	19.2
20874 71	Food colorings.....	...do.....	(X)	9.2	(X)	9.3
20874 81	Concentrated fruit juice products (not frozen).....	...do.....	4.2	5.5	5.5	16.5
20874 00	Other flavoring agents, except chocolate sirups, n.s.k.....	...do.....	(X)	11.9	(X)	30.9
20870 00	Flavoring extracts and flavoring sirups, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	(X)	37.8	(X)	17.1
20870 02	Flavoring extracts and flavoring sirups, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	(X)	10.3		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Not available because of errors in reporting. It is expected that corrected data will be available for the final reports.

<sup>2</sup>Quantity estimated based on quantity value relationship reported for other products.

## 1967 CENSUS OF MANUFACTURES

miscellaneous activities. The industry shipments of primary products represented 93 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

The total value of flavoring extracts and sirups shipped by all producers in 1967 was \$1,035.6 million of which \$886.2 million, or 86 percent, were shipped by plants classified in industry 2087, Flavoring Extracts and Sirups, N.E.C.,

while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 79 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2087.--FLAVORING EXTRACTS AND SIRUPS, N.E.C.												
United States, total.....	433	112	10.1	75.3	5.8	11.7	34.2	592.6	441.4	1,029.6	17.5	9.1	400.2
New England.....	41	7	0.4	2.4	0.2	0.5	0.9	8.6	10.0	18.6	0.2	0.4	6.9
Massachusetts.....	22	4	0.3	1.7	0.1	0.3	0.5	4.8	5.2	10.1	0.1	0.2	4.0
Middle Atlantic.....	130	37	3.0	22.6	1.7	3.4	10.7	133.4	150.0	282.0	2.7	2.7	93.9
New York.....	71	20	1.9	14.5	1.0	2.0	6.5	79.8	104.8	183.4	0.8	1.7	60.5
New Jersey.....	33	8	0.8	5.5	0.5	1.1	3.2	46.0	36.2	82.1	1.5	0.6	29.4
Pennsylvania.....	26	9	0.4	2.6	0.2	0.4	1.1	7.6	8.9	16.5	0.4	0.3	4.0
East North Central....	91	27	3.0	23.2	2.0	4.0	12.1	187.5	116.2	302.0	5.6	2.3	97.9
Illinois.....	42	16	2.1	16.7	1.5	3.1	9.3	163.2	94.5	256.5	4.0	1.8	87.9
Michigan.....	18	4	0.1	1.2	0.1	0.1	0.4	3.0	3.4	6.2	0.1	(D)	(D)
West North Central....	30	5	0.5	3.6	0.4	0.7	2.3	25.5	22.2	47.3	0.7	0.6	26.5
South.....	85	22	2.3	16.5	1.1	2.1	5.6	190.1	109.1	298.4	6.8	2.3	140.4
West.....	56	14	0.9	6.9	0.4	0.9	2.7	47.5	33.9	81.4	1.6	0.8	34.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2087- --	FLAVORING EXTRACTS AND SIRUPS, N.E.C., TOTAL.....	.....	(X)	1,035.6	(X)	790.3
20871 --	Flavoring extracts, emulsions, and other liquid flavors.....	.....	(X)	95.0	(X)	99.3
20871 11	Natural or true:	.....	( <sup>1</sup> )	13.1	1.5	19.0
20871 15	In containers of 8 ounces or less.....	Million gal...	( <sup>1</sup> )	39.4	4.7	34.0
	In containers of more than 8 ounces.....	...do.....				
20871 51	Imitation:	.....	( <sup>1</sup> )	1.8	0.8	4.5
20871 55	In containers of 8 ounces or less.....	...do.....	( <sup>1</sup> )	30.1	5.4	24.2
	In containers of more than 8 ounces.....	...do.....				
20871 00	Flavoring extracts, emulsions, and other liquid flavors, n.s.k..	.....	(X)	10.6	(X)	17.6
20872 --	Liquid beverage bases, not for use by soft drink bottlers.....	Million gal...	78.5	130.2	32.0	76.1
20872 23	Containing kola extract or flavoring.....	...do.....	13.0	25.1	11.6	27.8
20872 15	Cocktail mixes.....	...do.....	2.8	8.4	20.2	47.8
20872 25	All other flavors.....	...do.....	61.1	94.1		
20872 00	Liquid beverage bases, n.s.k.....	...do.....	<sup>2</sup> 1.6	2.6	0.2	0.6
20873 --	Flavoring sirups for use by soft drink bottlers.....	...do.....			308.3	298.7
20873 13	Containing kola extracts or flavoring.....	...do.....	235.8	353.0	265.6	249.4
20873 39	All other flavors.....	...do.....			41.6	48.3
20873 00	Flavoring sirups for use by soft drink bottlers, n.s.k.....	...do.....			1.0	1.0
20874 --	Other flavoring agents (except chocolate sirups).....	.....	(X)	409.3	(X)	299.1
20874 35	Flavoring powders and tablets:	.....				
20874 39	Soft drinks (effervescent and noneffervescent).....	Million lbs...	37.7	89.9	98.9	79.6
	Other flavoring powders and tablets.....	...do.....	114.6	77.7		
20874 41	Flavoring pastes.....	...do.....	24.5	9.6	19.6	6.9
20874 59	Flavoring sirups for fountain, ice cream, home beverage use,	.....				
	all flavors.....	Million gal...	98.5	182.5	87.9	136.6
20874 61	Fruit, crushed or whole for fountain and ice cream use.....	...do.....	8.0	23.0	5.6	19.2
20874 71	Food colorings.....	.....	(X)	9.2	(X)	9.3
20874 81	Concentrated fruit juice products (not frozen).....	.....	4.2	5.5	5.5	16.5
20874 00	Other flavoring agents, except chocolate sirups, n.s.k.....	.....	(X)	11.9	(X)	30.9
20870 00	Flavoring extracts and flavoring sirups, n.s.k. (For companies	.....	(X)	37.8		
	with 10 or more employees. See Note.).....	.....				
20870 02	Flavoring extracts and flavoring sirups, n.s.k. (For companies	.....	(X)	10.3	(X)	17.1
	with less than 10 employees. See Note.).....	.....				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Not available because of errors in reporting. It is expected that corrected data will be available for the final reports.

<sup>2</sup>Quantity estimated based on quantity value relationship reported for other products.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2087.--FLAVORING EXTRACTS AND SIRUPS, N.E.C.					
	Materials, ingredients, containers and supplies, total.....	.....	(X)	400.7	(X)	305.6
206011	Sugar (cane and beet) in terms of sugar solids.....	1,000 cwt.....	18,162.7	174.5	13,078.3	125.5
203348	Concentrated fruit juice products.....	Million gal.....	3.3	9.0	(X)	(X)
208701	Other flavors, including beverage bases.....	...do.....	(X)	18.6	(X)	(X)
208731	Flavoring sirups.....	...do.....	10.0	12.9	(X)	(X)
970099	All other materials and components, parts, containers, and supplies.....	.....	(X)	160.1	(X)	154.6
976000	Materials, n.s.k. <sup>1</sup> .....	.....	(X)	25.6	(X)	25.5

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2087, these small establishments accounted for approximately 2 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

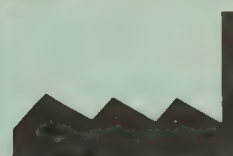
**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20H-1

## INDUSTRY SERIES

### Cottonseed oil mills

SIC Code 2091

preliminary  
report

The Cottonseed Oil Mills include establishments primarily engaged in manufacturing cottonseed oil, and byproduct cake, meal, and linters. Establishments primarily engaged in refining cottonseed oil into edible cooking oils are classified in industry 2096.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Cottonseed Oil Mills amounted to \$409.3 million, a decrease of 26 percent compared with 1963. Value added by manufacture at \$66.1 million in 1967 was 34 percent less than value

added in 1963. Average employment in the industry showed a decrease of 33 percent from 1963 to a total of 5.6 thousand employees in 1967.

Of the \$409.3 million total value of shipments and other receipts of establishments classified as cottonseed oil mills, \$49.7 million were products primary to other industries; and \$41.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 86 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

The total value of cottonseed oil mill products shipped by all producers in 1967 was \$371.8 million of which \$318.4 million, or 86 percent,

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2091.--COTTONSEED OIL MILLS													
1967 Census....	153	113	5.6	27.2	4.4	9.7	17.6	66.1	342.6	409.3	5.0	101.5	86	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	7.1	33.9	5.6	13.7	22.2	104.0	465.3	560.6	*2.4	126.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	8.1	37.3	6.5	16.1	25.7	103.5	455.4	555.4	6.4	126.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	7.9	38.6	6.2	16.6	26.5	72.1	434.5	526.6	*12.1	140.9	(NA)	(NA)
1963 Census....	188	153	8.4	38.2	6.6	16.6	26.0	100.8	464.7	555.2	12.5	153.0	89	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	8.4	35.0	6.6	16.4	23.5	76.7	415.2	511.7	26.0	126.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	8.2	34.0	6.4	16.2	22.4	89.4	396.8	478.4	6.0	135.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	8.6	33.3	6.8	16.7	21.8	78.2	360.4	443.3	4.9	100.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	8.9	33.6	7.0	17.3	22.1	66.4	360.7	429.3	*5.0	93.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	214	163	8.4	31.2	6.3	14.9	20.0	63.6	348.6	420.6	6.6	99.6	92	92

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

were shipped by plants classified in industry 2091, Cottonseed Oil Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2091, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M20J, Fats and Oils--Oilseed Crashings.

M20K, Fats and Oils--Production, Consumption, and Factory and Warehouse Stocks.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2091.--COTTONSEED OIL MILLS												
United States, total.....	153	113	5.6	27.2	4.4	9.7	17.6	66.1	342.6	409.3	5.0	8.4	100.8
South Atlantic.....	24	13	0.5	2.4	0.4	1.0	1.5	3.6	26.1	30.9	1.1	1.0	7.9
Georgia.....	7	5	0.2	0.9	0.1	0.3	0.5	3.0	9.1	12.2	(D)	0.4	3.1
East South Central....	37	31	1.3	5.6	1.0	2.2	3.5	7.8	58.6	68.8	1.1	2.1	20.0
Tennessee.....	8	4	0.2	1.0	0.2	0.4	0.6	(Z)	7.8	7.9	(D)	0.6	6.3
Alabama.....	10	8	0.3	1.3	0.2	0.5	0.8	1.8	11.4	13.8	(D)	0.4	3.7
Mississippi.....	19	19	0.8	3.4	0.6	1.3	2.1	6.3	39.4	47.1	0.9	1.0	10.0
West South Central....	72	55	2.7	13.1	2.2	5.2	9.0	30.7	191.1	218.0	1.9	3.5	43.8
Louisiana.....	8	5	0.2	1.1	0.2	0.5	0.7	2.3	11.9	13.9	0.1	(D)	(D)
Texas.....	49	36	1.9	9.3	1.5	3.5	6.3	23.9	142.6	163.7	1.5	2.4	32.6
West.....	16	12	1.0	5.7	0.7	1.3	3.4	23.7	62.8	87.2	(D)	1.6	28.1
Mountain.....	7	5	0.3	1.9	0.2	0.5	1.2	7.0	22.8	30.1	(D)	0.6	9.4
California.....	9	6	0.6	3.8	0.4	0.8	2.2	16.7	40.0	57.1	0.6	1.0	18.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product class code	Product	Unit of measure	1967				1963						
			Production for all purposes including further manufacture (quantity)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes including further manufacture (quantity)	Total shipments including interplant transfers		Commercial shipments		
				Quantity	Value (million dollars)	Quantity	Value (million dollars)		Quantity	Value (million dollars)	Quantity	Value (million dollars)	
2091- --	COTTONSEED OIL MILL PRODUCTS, TOTAL <sup>1</sup> .....	.....	(X)	(X)	371.8	(X)	(NA)	(X)	(X)	490.7	(X)	(NA)	
	Cottonseed oil:												
20911 11	Crude.....	Million lbs.	1,129.7	935.0	117.8	797.3	100.1	1,941.2	1,696.2	174.1	1,680.4	158.2	
20912 11	Once-refined.....	do.....	1,050.6	415.7	56.2	216.1	34.1	1,616.6	561.3	65.7	515.6	60.8	
20913 00	Cotton linters.....	do.....	637.1	625.2	39.7	(X)	(X)	986.3	941.4	37.3	(X)	(X)	
20914 --	Cottonseed cake, meal, and other byproducts.....	.....	(X)	(X)	151.4	(X)	(X)	(X)	(X)	208.1	(X)	(X)	
20914 13	Guaranteed low gossypol content.....	1,000 short tons.....	818.4	825.2	61.7	(X)	(X)	2,744.3	2,634.1	179.1	(X)	(X)	
20914 15	Other cake and meal.....	do.....	852.2	835.6	68.8	(X)	(X)						
20914 51	Hulls.....	do.....	798.6	830.9	19.2	(X)	(X)	1,339.4	1,372.0	24.1	(X)	(X)	
20914 98	Other cottonseed byproducts..	.....	(X)	(X)	1.7	(X)	(X)	(X)	(X)	4.9	(X)	(X)	
20910 00	Cottonseed oil mill products, n.s.k. (For companies with 10 or more employees. See Note.)	.....	(X)	(X)	5.8	(X)	(X)	}	(X)	(X)	5.1	(X)	(X)
20910 02	Cottonseed oil mill products, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	(X)	0.9	(X)	(X)						

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate products class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>The Census Bureau publishes detailed monthly production data for cottonseed oil mill products in Current Industrial Reports Series M20J, "Fats and Oils--Oilseed Crushings," and additional information in monthly Series M20K, "Fats and Oils--Production, Consumption, and Factory and Warehouse Stocks." Because of reporting differences by individual companies, fiscal year reporting rather than calendar periods, etc., the data shown in this report differ from that published in the current survey. For comparative purposes, the summary figures as published in the monthly current industrial reports series are shown below:

Code	Product	1967 total production as shown in current surveys M20J/M20K (million pounds)
20911 11	Cottonseed oil, crude.....	1,108.3
20912 11	Cottonseed oil, once-refined.....	1,050.8
20913 00	Cotton linters.....	618.2
20914 13 15	Cottonseed cake, meal and other byproducts.....	21,564.7
20914 51	Cottonseed hulls.....	2771.6

<sup>2</sup>Quantity shown in thousand short tons.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2091.--COTTONSEED OIL MILLS					
	Materials, ingredients, containers, and supplies, total <sup>1</sup> .....		(X)	303.5	(X)	401.7
011211	Cottonseed.....	1,000 short tons.	3,032.4	227.7	5,516.7	323.6
011381	Soybeans.....	...do.....	292.7	26.0	287.4	23.9
010015	Other seeds, nuts, and beans (excluding cottonseed, soybean, copra, and flaxseed).....	...do.....	117.2	10.0	(NA)	(NA)
209111	Cottonseed oil:					
	Crude.....	Million lbs.....	107.1	14.1	190.8	18.7
	Once-refined.....	...do.....	(X)	( <sup>1</sup> )	(X)	(X)
970099	All other materials, ingredients, containers, and supplies consumed.....		(X)	21.2	(X)	<sup>1</sup> 30.4
976000	Materials, ingredients, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	4.5	(X)	4.6

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Data are included with data for code 970099 "All other materials" to avoid disclosing figures for individual companies.<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2091, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20H-2

## INDUSTRY SERIES

### Soybean oil mills

SIC Code 2092

## preliminary report

Soybean Oil Mills include establishments primarily engaged in manufacturing soybean oil, and byproduct cake and meal. Establishments primarily engaged in refining soybean oil into edible cooking oils are classified in industry 2096.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Soybean Oil Mills Industry amounted to \$2,137.1 million, an increase of 45 percent compared with 1963. Value added by manu-

facture at \$247.3 million in 1967 was 62 percent more than value added in 1963. Average employment in the industry showed an increase of 23 percent from 1963 to a total of 8.0 thousand employees in 1967.

Of the \$2,137.1 million total value of shipments and other receipts of establishments classified as soybean oil mills, \$242.5 million were products primary to other industries; and \$199.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 88 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2092.--SOYBEAN OIL MILLS														
1967 Census....	102	78	8.0	54.9	5.5	12.2	34.4	247.3	1,923.9	2,137.1	21.2	347.7	88	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	7.1	47.3	5.0	11.0	30.4	209.5	1,815.7	2,009.8	13.7	256.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	6.6	42.6	4.6	10.1	27.1	157.4	1,552.8	1,731.8	17.7	255.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	6.4	41.0	4.5	9.7	25.9	170.2	1,454.3	1,585.5	10.8	352.0	(NA)	(NA)
1963 Census....	102	71	6.5	39.9	4.6	10.1	25.7	152.1	1,334.6	1,473.4	10.2	279.0	89	95
1962 ASM <sup>1</sup> .....	(NA)	(NA)	7.3	41.3	5.1	11.0	26.4	147.7	1,199.9	1,345.7	14.2	210.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	7.7	43.4	5.4	11.8	27.3	166.1	1,138.8	1,284.1	14.8	193.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	7.7	42.3	5.6	12.3	27.0	131.6	1,001.5	1,132.7	13.8	193.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	8.1	42.7	6.1	13.5	28.8	147.5	1,008.0	1,146.9	*26.6	183.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	117	83	8.1	41.9	5.7	12.8	27.1	139.6	947.0	1,080.8	14.7	161.9	87	94

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

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BUREAU OF THE CENSUS George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

The total value of soybean oil mill products shipped by all producers in 1967 was \$1,734.1 million of which \$1,695.0 million, or 98 percent, were shipped by plants classified in industry 2092, Soybean Oil Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 95 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2092, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M20J, Fats and Oils, Oilseed Crushings.

M20K, Fats and Oils, Production, Consumption, and Factory and Warehouse Stocks.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2092.--SOYBEAN OIL MILLS												
United States, total.....	102	78	8.0	54.9	5.5	12.2	34.4	247.3	1,923.9	2,137.1	21.2	6.5	152.1
East North Central....	25	23	3.6	27.8	2.5	5.5	17.6	95.2	785.8	883.4	12.0	3.2	81.0
Iowa.....	18	14	0.9	6.3	0.6	1.3	4.0	21.9	306.0	330.5	(D)	0.9	24.7
Missouri.....	3	3	0.4	2.2	0.2	0.4	1.2	7.5	71.6	78.5	1.1	0.4	4.7
Kansas.....	4	4	0.2	1.5	0.2	0.4	1.0	8.1	77.2	84.9	0.1	(D)	(D)
South.....	33	27	2.2	13.2	1.6	3.6	8.1	98.5	575.2	636.0	5.1	1.3	25.7
East South Central....	18	15	1.3	8.1	0.9	2.0	4.8	30.0	347.3	378.6	3.8	0.7	14.2
Tennessee.....	8	7	0.6	3.5	0.4	0.8	2.1	14.2	217.0	233.0	0.8	0.4	7.3
Mississippi.....	6	5	0.4	2.3	0.3	0.8	1.5	8.2	59.1	66.7	1.7	(D)	(D)
West .....	9	3	0.3	1.5	0.2	0.5	0.8	5.4	5.4	10.7	(Z)	0.1	1.0
California.....	7	3	0.3	1.5	0.2	0.4	0.8	5.3	5.3	10.5	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Production for all purposes including further manufacture (quantity) <sup>1</sup>	Total shipments including interplant transfers		Commercial shipments	
				Quantity	Value (million dollars)	Quantity	Value (million dollars)
1967							
2092- --	SOYBEAN OIL MILL PRODUCTS, TOTAL.....		(X)	(X)	1,734.1	(X)	(X)
20921 --	Soybean oil.....	Million pounds	10,985.4	5,640.8	593.5	5,302.2	550.0
	Crude.....	do.....	6,010.6	5,037.7	522.2	4,805.3	498.7
20921 13	Degummed.....	do.....	3,891.3	3,046.0	317.2	2,938.2	306.4
20921 15	Not degummed.....	do.....	2,119.3	1,991.7	205.0	1,867.1	192.3
20921 21	Once-refined <sup>2</sup> .....	do.....	4,974.8	603.1	71.4	496.9	51.3
20921 31	Processed for inedible purposes <sup>3</sup> .....	do.....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
20922 --	Soybean cake, meal, and other byproducts.....		(X)	(X)	1,135.1	(X)	(NA)
20922 11	Meal.....	1,000 s. tons.	13,149.3	12,905.9	1,064.2	11,743.0	943.5
20922 31	Soy flour and grits.....	Million pounds	460.8	575.4	38.2	(X)	(NA)
20922 51	Lecithin.....	do.....	46.7	57.7	5.9	(X)	(NA)
20922 61	Millfeed (hull meal).....	1,000 s. tons.	326.0	346.5	14.8	287.7	11.7
20922 98	Other soybean byproducts.....	Million pounds	90.0	94.3	12.0	(X)	(NA)
20920 00	Soybean oil mill products, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	(X)	4.8	(X)	(X)
20920 02	Soybean oil mill products, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	(X)	0.6	(X)	(X)
1963							
2092- --	SOYBEAN OIL MILL PRODUCTS, TOTAL.....		(X)	(X)	1,293.6	(X)	(NA)
20921 --	Soybean oil.....	Million pounds	8,896.0	4,912.5	458.9	4,727.2	441.6
	Crude.....	do.....	4,959.3	4,295.6	394.1	4,178.8	383.7
20921 13	Degummed.....	do.....	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
20921 15	Not degummed.....	do.....	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
20921 21	Once-refined <sup>2</sup> .....	do.....	3,914.7	589.6	62.3	526.1	55.6
20921 31	Processed for inedible purposes <sup>3</sup> .....	do.....	20.6	23.9	2.4	22.3	2.3
20922 --	Soybean cake, meal, and other byproducts.....		(X)	(X)	831.4	(X)	(NA)
20922 11	Meal.....	1,000 s. tons.	10,462.9	10,668.0	802.1	9,341.8	702.8
20922 31	Soy flour and grits.....	Million pounds	325.5	363.1	18.7	(X)	(NA)
20922 51	Lecithin.....	do.....	43.9	44.2	6.1	(X)	(NA)
20922 61	Millfeed (hull meal).....	do.....	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
20922 98	Other soybean byproducts.....	do.....	136.4	136.7	4.4	(X)	(NA)
20920 00	Soybean oil mill products, n.s.k.....		(X)	(X)	3.4	(X)	(NA)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. <sup>1</sup>Revised. (X) Not applicable.

<sup>2</sup>The Census Bureau publishes detailed monthly production data for selected soybean oil mill products in Current Industrial Reports Series M20J, Fats and Oils--Oilseed Crushings, and Series M20K, Fats and Oils--Production, Consumption, and Stocks. Because of reporting differences by individual establishments, some possible misclassification, fiscal versus calendar year reporting, etc., the data shown in this report differ from that published in the current survey. The summary figures for 1967 as published in the current report and census are shown below for comparative purposes.

Product code	Item	Unit of measure	1967 Production	
			Census surveys M20J/20K	Census of manufactures
20921 --	Soybean oil:			
20921 13	Soybean oil, crude.....	Million pounds.	6,149.9	6,010.6
20921 15				
20921 21	Soybean oil, once refined.....	do.....	5,072.8	4,974.8
20922 --	Soybean cake meal and other byproducts:			
20922 11	Meal.....	1,000 s. tons..	13,359.2	13,149.3
20922 61	Millfeed (hull meal).....	do.....	363.2	326.0

<sup>2</sup>Oil treated by alkali or caustic wash. Shipments figures exclude amounts of refined oil which have been further processed at the refining establishment by bleaching, deodorizing, and/or winterizing. Such oils are classified as shortening or cooking oils and will be included in the report for industry 2096, Shortening and Cooking oils.

<sup>3</sup>Includes acid refined, boiled, blown, heat treated, or chemically modified oil.

<sup>4</sup>Data for code 2092131 are included with code 2092121 to avoid disclosing figures for individual companies.

<sup>5</sup>Separate data for this product description were not requested prior to 1967.

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")						
Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2092.--SOYBEAN OIL MILLS					
	Materials, ingredients, containers, and supplies, total <sup>1</sup> .....		(X)	1,717.8	(X)	1,232.7
011211	Cottonseed.....	1,000 short tons.	654.4	57.9	172.3	10.8
011381	Soybeans.....	do.....	16,061.6	1,497.2	13,216.5	1,118.7
	Soybean oil:					
209211	Crude.....	do.....	407.6	35.8	71.4	5.8
209212	Once-refined.....	do.....	(X)	( <sup>1</sup> )	19.6	1.9
260091	Paper and paperboard containers.....		(X)	2.2	(X)	1.2
970099	All other materials, ingredients, containers, and supplies consumed.....		(X)	121.6	(X)	89.6
976000	Materials, ingredients, containers, and supplies, n.s.k. <sup>2</sup> .....		(X)	3.1	(X)	4.6
n.s.k. Not specified by kind. ( <sup>1</sup> ) n.s.						

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Data are included with code 970099, "All Other Materials," to avoid disclosing figures for individual companies.<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2092, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--** All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--** This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--** This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--** The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--** In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--** The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



OFFICIAL BUSINESS

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES

MC67(P)-20H-3

## INDUSTRY SERIES

preliminary  
report

### Vegetable oil mills, n.e.c.

SIC Code 2093

Vegetable Oil Mills, Except Corn, Cottonseed, and Soybean, includes establishments primarily engaged in manufacturing vegetable oils and byproduct cake and meal, except corn, cottonseed, and soybean. Establishments primarily engaged in refining vegetable oils into edible cooking oils are classified in industry 2096, and those refining these oils for medicinal purposes in industry 2833.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Vegetable Oil Mills, N.E.C., amounted

to \$236.7 million, an increase of 1 percent compared with 1963. Value added by manufacture at \$41.8 million in 1967 was 2 percent less than value added in 1963. Average employment in the industry showed a decrease of 15 percent from 1963 to a total of 1.7 thousand employees in 1967.

Of the \$236.7 million total value of shipments and other receipts of establishments classified as manufacturers of vegetable oil mill products, n.e.c., \$37.3 million were products primary to other industries; and \$46.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 80 percent of the total manufactured product shipments, primary and secondary. This percent, called

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2093.--VEGETABLE OIL MILLS, N.E.C.														
1967 Census....	41	18	1.7	10.8	1.4	3.1	7.9	41.8	198.2	236.7	1.9	51.0	80	75
1966 ASM <sup>1</sup> .....	(NA)	(NA)	1.8	11.6	1.5	3.3	8.4	37.5	226.4	265.7	2.5	46.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	*2.0	*12.7	*1.5	*3.4	*8.9	*41.8	*226.5	*265.7	*3.9	*50.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	2.0	12.6	1.5	3.3	8.6	43.8	203.3	251.9	1.4	46.0	(NA)	(NA)
1963 Census....	47	22	2.0	11.5	1.5	3.2	8.1	42.7	194.4	234.2	1.6	52.2	84	83
1962 ASM <sup>1</sup> .....	(NA)	(NA)	1.8	9.9	1.4	3.0	7.0	34.3	274.0	308.6	1.2	41.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	1.9	9.6	1.4	2.9	6.8	42.2	289.7	327.6	0.5	41.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	1.9	9.9	1.5	3.0	6.9	34.1	294.3	331.7	1.1	39.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	2.2	12.6	1.8	3.9	9.7	46.3	311.3	357.7	*1.7	46.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	46	20	2.3	12.5	1.8	3.9	9.5	42.1	270.7	314.7	2.0	44.3	80	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. n.e.c. Not elsewhere classified.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued January 1970

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

the specialization ratio for the industry, was 84 percent in 1963.

The total value of vegetable oil mill products, n.e.c., shipped by all producers in 1967 was \$203.5 million of which \$152.8 million, or 75 percent, were shipped by plants classified in industry 2093, Vegetable Oil Mills, N.E.C., while the remainder was shipped by plants classified in other industries. This percent,

called the coverage ratio, was 83 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2093, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M20J, Fats and Oils, Vegetable Oil Crushers, and  
M20K, Fats and Oils, Production, Consumption, and Factory  
and Warehouse Stocks, Summaries for 1967, and appear in  
table 3 where applicable.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2093.--VEGETABLE OIL MILLS, N.E.C.												
United States, total.....	41	18	1.7	10.8	1.4	3.1	7.9	41.8	198.2	236.7	1.9	2.0	42.7
West North Central....	5	4	0.4	2.8	0.3	0.6	2.1	12.0	59.2	68.1	(Z)	(D)	(D)
South.....	15	8	0.8	3.2	0.7	1.5	2.4	10.7	51.3	62.7	1.2	0.5	10.0
Texas.....	3	3	0.1	0.4	0.1	0.2	0.3	(Z)	4.2	4.9	(D)	(D)	(D)
West.....	14	7	0.3	1.9	0.2	0.4	1.3	5.2	63.2	68.0	0.3	0.6	12.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified. (Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product class code	Product	Unit of measure	1967				
			Production for all purposes including further manufacturing (quantity)	Total shipments including interplant transfers		Value (million dollars)	
				Quantity			
2093- --	VEGETABLE OIL MILL PRODUCTS, N.E.C., TOTAL.....		(X)	(X)		203.5	
20931 --	Linseed oil.....	Million lbs....	(X)	338.7		48.2	
	Linseed oil:						
20931 13	Raw and boiled.....	...do.....	<sup>1</sup> 370.6	97.3		12.3	
20931 33	Processed (refined, blown, heat treated, or chemically modified)..	...do.....	( <sup>2</sup> )	241.4		35.9	
20932 --	Vegetable oils (other than cottonseed, soybean, and linseed).....		(X)	784.1		111.2	
20932 21	Coconut oil:						
20932 21	Crude.....	Million lbs....	<sup>1</sup> 350.5	(D)		(D)	
20932 23	Once-refined <sup>3</sup> .....	...do.....	<sup>1</sup> 565.1	149.4		23.8	
	Peanut oil:						
20932 52	Crude.....	...do.....	<sup>1</sup> 176.4	126.4		15.0	
20932 57	Once-refined <sup>3</sup> .....	...do.....	<sup>1</sup> 165.3	(D)		(D)	
	Other vegetable oils, including safflower oil, castor oil, tungoil, etc.,						
20932 61	Crude.....	...do.....	226.4	186.1		32.2	
20932 64	Other vegetable oils, once-refined <sup>3</sup> .....	...do.....	376.1	(D)		(D)	
20932 73	Processed for inedible purposes (dehydrated castor oil, etc.).....	...do.....	(D)	(D)		(D)	
20932 00	Vegetable oils (other than cottonseed, soybean, and linseed) n.s.k..		(X)	<sup>4</sup> 5.0		0.7	
20933 --	Other vegetable oil mill products, except cottonseed and soybean.....		(X)	(X)		41.8	
20933 11	Linseed cake and meal.....	1,000 short tons	<sup>1</sup> 331.8	300.8		21.6	
20933 41	Copra cake and meal.....	...do.....	<sup>1</sup> 99.7	( <sup>5</sup> )		( <sup>5</sup> )	
20933 51	Peanut cake and meal.....	...do.....	<sup>1</sup> 117.6	91.3		7.6	
20933 98	Other oil seed cake and meal.....	...do.....	200.9	214.9		7.1	
20933 00	Other vegetable oil mill products, except cottonseed and soybean, n.s.k.....		(X)	(X)		5.5	
20930 00	Vegetable oil mill products, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	(X)		2.0	
20930 02	Vegetable oil mill products, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	(X)		0.3	
1963							
			Production for all purposes including further manufacturing (quantity)	Total shipments including interplant transfers		Commercial shipments	
				Quantity	Value (million dollars)	Quantity	Value (million dollars)
2093- --	VEGETABLE OIL MILL PRODUCTS, N.E.C., TOTAL.....		(X)	(X)	196.8	(X)	(NA)
20931 --	Linseed oil.....	Million lbs....	(X)	421.5	50.2	363.4	42.2
	Linseed oil:						
20931 13	Raw and boiled.....	...do.....	398.2	69.7	8.7	46.2	5.6
20931 33	Processed (refined, blown, heat treated, or chemically modified)..	...do.....	( <sup>2</sup> )	351.7	41.5	317.2	36.6
20932 --	Vegetable oils (other than cottonseed, soybean, and linseed).....		(X)	738.7	105.2	(X)	(NA)
	Coconut oil:						
20932 21	Crude.....	Million lbs....	350.8	259.3	28.3	171.8	18.4
20932 23	Once-refined <sup>3</sup> .....	...do.....	<sup>1</sup> 554.5	154.9	21.6	(X)	(NA)
	Peanut oil:						
20932 52	Crude.....		(X)	( <sup>6</sup> )	( <sup>6</sup> )	(X)	(NA)
20932 57	Once-refined <sup>3</sup> .....		(X)	( <sup>6</sup> )	( <sup>6</sup> )	(X)	(NA)
	Other vegetable oils, including safflower oil, castor oil, tung oil, etc. <sup>6</sup> :						
20932 61	Crude.....	...do.....	206.1	133.7	18.2	126.4	17.4
20932 64	Other vegetable oils, once-refined <sup>3</sup> .....	...do.....	375.3	111.6	18.9	104.8	18.0
20932 73	Processed for inedible purposes, (dehydrated castor oil etc.).....	...do.....	67.8	66.5	16.3	37.9	12.2
20932 00	Vegetable oils (other than cottonseed, soybean, and linseed) n.s.k..		(X)	<sup>4</sup> 12.8	1.8	(X)	(NA)
20933 --	Other vegetable oil mill products, except cottonseed and soybean.....		(X)	(X)	39.5	(X)	(NA)
20933 11	Linseed cake and meal.....	1,000 short tons	364.9	347.6	22.1	(X)	(NA)
20933 41	Copra cake and meal.....	...do.....	99.7	105.3	7.7	(X)	(NA)
20933 98	Other oil seed cake and meal.....		198.3	196.2	8.9	(X)	(NA)
20933 00	Other vegetable oil mill products, except cottonseed and soybean, n.s.k.....		(X)	(X)	0.8	(X)	(NA)
20930 00	Vegetable oil mill products, n.e.c., n.s.k.....		(X)	(X)	1.9	(X)	(NA)

See footnote on next page.

## 1967 CENSUS OF MANUFACTURES

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

FOOTNOTES FOR TABLE 3--INDUSTRY 2093

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Production figures are from the Current Industrial Report "Fats and Oils, Production, Consumption, and Factory and Warehouse Stocks, Summary for 1967" (Series M20K(67)-13), and for Current Industrial Report, "Fats and Oils, Summary for 1967" (Series M20J(67)-13).

<sup>2</sup>Total production not available. In the census of manufactures, data are not collected for the production of refined oil, from plants making soap, paint, or other inedible products where the refining was an integral part of the soap or paint making process.

<sup>3</sup>Oil treated by alkali or caustic wash. Shipments figures exclude amounts of refined oil which have been further processed at the refining establishments by bleaching, deodorizing, and/or winterizing. Such oils are classified as shortening or cooking oils and will be included in the report for industry 2096, Shortening and Cooking Oils.

<sup>4</sup>Quantity estimated based on quantity-value relationship of other products in the product class.

<sup>5</sup>Product code 2093341 included in code 2093300 to prevent disclosure of figures for individual companies.

<sup>6</sup>Included with other vegetable oils in 1963; separate data not available. Information on safflower oil, both crude and refined, are shown in Volume II, Industry Statistics, Part 1.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
INDUSTRY 2093.--VEGETABLE OIL MILLS, N.E.C.						
	Materials, ingredients, containers, and supplies, total <sup>1</sup> ....	.....	(X)	154.7	(X)	158.5
011211	Cottonseed.....	1,000 short tons.	47.5	2.9	(X)	( <sup>1</sup> )
011381	Soybeans.....	..do.....	(NA)	( <sup>1</sup> )	(NA)	( <sup>1</sup> )
012287	Copra.....	..do.....	(NA)	( <sup>1</sup> )	211.8	35.0
011911	Flaxseed.....	..do.....	371.6	48.3	482.4	49.3
010015	Other seeds, nuts and beans (exclude cottonseed, soybean, copra.	..do.....	325.2	29.9	( <sup>2</sup> )	( <sup>2</sup> )
970099	All other materials, ingredients, containers, and supplies consumed.....	.....	(X)	73.1	(X)	71.7
976000	Materials, ingredients, containers, and supplies, n.s.k. <sup>1</sup> .....	.....	(X)	0.5	(X)	2.5
(NA) Not available						

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Not shown to avoid disclosing figures for individual companies; value figure included with code 070099, "All other materials."

<sup>2</sup>In 1963 separate data were not collected for code 010015.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2093, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

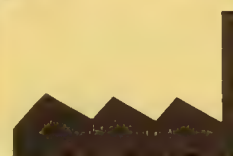
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-20H-4

## INDUSTRY SERIES

### Animal and marine fats and oils

SIC Code 2094

**preliminary  
report**

The Animal and Marine Fats and Oils Industry includes establishments primarily engaged in manufacturing animal oils, including fish oil and other marine animal oils, and byproduct meal; and those rendering inedible grease and tallow from animal fat, bones, and meat scraps. Establishments primarily engaged in manufacturing lard and edible tallow and stearin are classified in Group 201; those refining marine animal oils for medicinal purposes in industry 2833; and those manufacturing fatty acids in industry 2899.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Animal and Marine Fats and Oils Industry amounted to \$559.9 million, an increase of 18 percent compared with 1963. Value added by manufacture at \$208.2 million in 1967 was 8 percent more than value added in 1963. Average employment in the industry showed a decrease of 4 percent from 1963 to a total of 13.8 thousand employees in 1967.

Of the \$559.9 million total value of shipments and other receipts of establishments classified as animal and marine fats and oils, \$36.9 million were products primary to other industries; and \$54.8 million were receipts for miscellaneous activities. The industry shipments of

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2094.--ANIMAL AND MARINE FATS AND OILS													
1967 Census....	588	226	13.8	92.5	9.8	22.1	59.0	208.2	348.9	559.9	21.7	29.3	93	66
1966 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	89.3	8.7	19.8	50.6	306.6	460.0	765.3	22.6	38.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	14.2	90.2	10.2	23.7	56.5	248.4	425.8	669.2	12.7	39.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	14.2	84.5	10.4	23.9	54.7	210.7	347.3	550.4	14.7	36.2	(NA)	(NA)
1963 Census....	615	211	14.3	78.3	10.3	22.7	51.3	193.3	280.4	474.0	13.7	29.9	94	66
1962 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	74.2	9.8	21.2	50.0	168.2	232.0	400.6	20.5	25.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	12.6	69.0	9.4	20.5	46.5	164.0	219.0	376.3	15.3	27.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	13.7	69.9	10.0	21.8	46.9	129.1	190.3	318.0	*13.9	0.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	14.0	67.0	10.6	21.8	45.9	140.3	222.7	353.1	*19.2	0.0	(NA)	(NA)
1958 Census <sup>2</sup> ....	617	210	14.6	67.9	10.9	23.6	46.4	151.6	238.5	389.3	12.7	25.4	93	61

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 16 and 6, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

primary products represented 93 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

The total value of animal and marine fats and oils shipped by all producers in 1967 was \$705.1 million of which \$468.2 million, or 66 percent, were shipped by plants classified in industry 2094, Animal and Marine Fats and Oils, while the remainder was shipped by plants

classified in other industries. This percent, called the coverage ratio, was 66 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2094, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M20K, Fats and Oils, Production, Consumption, and Factory and Warehouse Stocks.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2094.--ANIMAL AND MARINE FATS AND OILS													
United States, total.....	588	226	13.8	92.5	9.8	22.1	59.0	208.2	348.9	559.9	21.7	14.3	193.3
New England.....	31	11	0.9	5.9	0.5	1.0	2.8	11.7	17.2	28.7	0.5	(D)	(D)
Middle Atlantic.....	79	31	1.8	13.6	1.2	2.8	8.2	31.2	48.2	80.2	3.8	(D)	(D)
New York.....	23	8	0.6	5.2	0.4	0.9	2.9	12.2	15.7	28.6	(D)	1.0	14.1
New Jersey.....	18	7	0.3	2.6	0.3	0.6	2.0	8.1	14.0	22.1	(D)	(D)	(D)
Pennsylvania.....	38	16	0.8	5.8	0.5	1.2	3.3	10.9	18.6	29.6	2.5	1.1	12.5
East North Central....	100	36	2.7	20.2	1.7	3.9	12.0	33.6	84.3	119.7	7.1	(D)	(D)
Ohio.....	19	11	0.7	5.2	0.4	0.9	2.5	8.4	16.7	25.3	2.8	0.7	10.3
Indiana.....	20	8	0.4	2.5	0.2	0.6	1.5	4.0	8.6	12.7	0.6	(D)	(D)
Illinois.....	29	10	0.8	6.4	0.5	1.1	3.6	7.0	37.9	46.5	1.0	1.0	14.4
Michigan.....	14	4	0.5	4.4	0.4	0.9	3.1	8.9	8.8	17.9	0.7	0.5	8.0
Wisconsin.....	18	3	0.2	1.8	0.2	0.5	1.3	5.3	12.2	17.2	2.0	0.3	5.5
West North Central....	99	34	2.0	12.6	1.5	3.6	9.0	30.5	34.7	65.2	1.9	(D)	(D)
Minnesota.....	23	12	0.4	2.5	0.4	0.9	1.9	5.8	4.9	10.7	0.4	0.4	4.2
Iowa.....	26	6	0.6	4.1	0.5	1.1	3.2	7.8	7.8	15.6	0.4	0.4	5.3
Missouri.....	14	6	0.4	2.7	0.3	0.7	1.8	4.7	6.1	10.7	(D)	0.2	2.2
Nebraska.....	23	5	0.3	1.9	0.2	0.5	1.3	8.3	10.2	18.5	0.4	0.3	5.1
Kansas.....	8	3	0.2	0.8	0.1	0.2	0.4	1.9	5.0	7.0	0.2	0.1	1.7
South Atlantic.....	74	39	2.0	11.7	1.4	3.2	7.1	27.8	41.9	69.7	3.0	2.1	22.8
Maryland.....	10	8	0.3	1.6	0.2	0.6	1.2	4.1	7.9	11.7	(D)	0.2	3.7
Virginia.....	11	9	0.5	2.8	0.3	0.8	1.7	5.7	11.7	17.3	0.9	0.5	4.8
North Carolina.....	20	8	0.6	3.2	0.4	0.7	1.8	8.2	11.0	19.6	1.4	0.6	5.7
Georgia.....	14	6	0.2	1.5	0.2	0.4	0.9	3.2	5.0	8.1	0.2	0.3	2.9
Florida.....	10	6	0.3	2.2	0.2	0.5	1.2	5.0	4.6	9.7	0.2	(D)	(D)
East South Central....	34	13	0.7	3.6	0.5	1.1	2.3	6.8	13.1	19.7	0.5	0.8	7.5
Tennessee.....	13	3	0.2	1.0	0.1	0.2	0.5	1.3	2.6	3.9	0.1	0.2	1.4
Alabama.....	12	5	0.2	1.2	0.2	0.4	0.8	3.1	5.3	8.2	0.2	(D)	(D)
West South Central....	64	28	1.7	8.3	1.4	3.0	5.9	22.9	25.6	48.9	2.0	1.5	19.3
Arkansas.....	8	4	0.2	1.1	0.2	0.4	0.7	6.0	6.3	12.4	0.3	0.2	3.9
Louisiana.....	11	8	0.6	2.6	0.5	1.1	2.1	8.0	6.2	14.6	0.4	0.5	7.5
Oklahoma.....	10	2	0.1	0.7	0.1	0.2	0.5	1.6	1.8	3.3	(Z)	0.1	1.1
Texas.....	35	14	0.8	3.8	0.6	1.3	2.6	7.4	11.3	18.6	1.3	0.7	6.8
Mountain.....	29	5	0.3	2.1	0.3	0.6	1.5	4.9	6.6	11.5	0.7	0.3	4.3
Pacific.....	78	29	1.7	14.4	1.3	2.8	10.0	38.8	77.4	116.2	2.3	1.4	28.5
Washington.....	16	6	0.2	1.9	0.2	0.4	1.2	4.2	6.6	10.7	(D)	0.2	3.4
California.....	45	19	1.2	10.9	0.9	2.1	7.8	31.3	66.3	98.0	1.3	1.1	24.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2094- --	ANIMAL AND MARINE FATS AND OILS, TOTAL <sup>1</sup> .....	.....	(X)	705.1	(X)	642.9
20941 12	Grease and inedible tallow <sup>2</sup> .....	Million lbs...	5,383.8	303.7	4,706.3	264.2
20942 --	Meat meal and tankage <sup>3</sup> .....	1,000 short tons.....	3,797.0	274.7	2,973.3	246.7
20942 17	Meat meal and tankage (including meat meal, meat and bone meal, poultry byproduct meal, digester tankage, or any mixture of these, excluding pure blood meal, feather meal, and pure bone meal).....	.....do.....	3,156.2	222.6	2,136.1	176.1
20942 33	Bone meal.....	.....do.....	220.7	17.2	296.4	25.0
20942 37	Feather meal.....	.....do.....	145.0	12.2	485.0	41.0
20942 49	Other feed and fertilizer, including dried blood, etc.....	.....do.....	<sup>e</sup> 235.0	19.8		
20942 00	Feed and fertilizer, n.s.k.....	.....	<sup>2</sup> 40.1	2.9	55.8	4.6
20943 --	Animal and marine oil products, including foots.....	.....	(X)	96.8	(X)	111.3
20943 11	Foots, animal, vegetable and fish and acidulated soap stock....	.....	(NA)	33.3	(X)	30.0
20943 45	Animal oil mill products, including inedible animal stearin and all other animal oil except fatty acids.....	Million lbs...	<sup>e</sup> 109.7	11.4	116.2	10.7
	Marine animal oil products:					
20943 61	Fish and marine animal oil.....	.....	(NA)	16.0	(X)	24.7
20943 66	Fish scrap and meal.....	.....	(NA)	30.3	(X)	42.0
20943 79	Other fish and marine animal oil products.....	.....	(NA)	3.8	(X)	3.3
20943 00	Animal oils, n.s.k.....	.....	(X)	2.0	(X)	0.6
20940 00	Animal and marine fats and oils, n.s.k. (For companies with more than 10 employees. See Note.).....	.....	(X)	23.4	(X)	20.7
20940 02	Animal and marine fats and oils, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	6.5	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>10 to 30 percent of the quantity is estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Edible tallow will be shown in the report for industry 2011, slaughtering and meat packing plants.

<sup>2</sup>Quantity estimated based on the average quantity-value relationship of other products of the product class.

<sup>3</sup>Production and other related data are collected on a monthly basis and published in Current Industrial Reports Series M20K, Fats and Oils-Production, consumption and stocks, whereas the figures shown in this report are shipments. The summary figures on production are shown below for comparative purposes.

Code	Item	Production-1967 (millions of pounds)
20941	Grease and inedible tallow.....	4,753.0
29942	Meat meal and tankage.....	4,109.0

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2094, these small establishments accounted for approximately 1 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume III.)*

**All Employees**--All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls**--This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours**--This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials**--The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put

into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Value of Shipments**--The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Duplication in Cost of Materials and Value of Products**--The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries for individual States may include large amounts of duplication since the products of some industries are used as materials by others. With some important exceptions, such as motor vehicles and parts, this duplication is not significant within individual industries but arises from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication--the value of finished manufactures--tends to approximate two-thirds of the total value of products.

In the past, the Bureau of the Census has not published figures for cost of materials or value of shipments if they contained significant duplication. Effective with the 1962 annual survey these figures were shown at all industry levels



for the United States to meet the requests for their use in studies in which the presence of an indeterminate amount of duplication is not a limiting factor. However, they are appropriately footnoted. Effective with the 1964 annual survey, these industry group totals are also shown at the State, standard metropolitan statistical area, and large-county level.

Even where no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs to value of shipments among industries.

**Value Added by Manufacture**--This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly), plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment**--For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**Central Administrative Offices and Auxiliary Units**--In the 1967 census as in previous years, respondents were asked to file separate reports for central administrative offices or auxiliary units which were (1) at different locations from the establishments served or, (2) at the same location as one of these establishments but were not operated as an integral part thereof and served two or more establishments. The functions of employees in central administrative offices include general company policy determination, planning and management (that is, company purchasing, accounting, general engineering, direction of company personnel matters, and legal and patent matters). Auxiliaries are storage facilities, garages, repair shops, purchasing offices, sales promotion offices, and research laboratories serving the plants or central management of the company.

**Standard Metropolitan Statistical Areas**--Standard metropolitan statistical areas are integrated economic and social units with a large volume of daily travel and communication between the central city (having 50,000 population or more) and outlying parts of the area. Each area (except in New England) consists of one or more whole counties. An area may contain not only highly industrialized counties but also adjoining counties which, though primarily residential in character, contribute significantly to the industrial counties' labor force and are socially and economically integrated with the central city. These areas were defined by the Federal Committee on Standard Metropolitan Statistical Areas of the U.S. Bureau of the Budget for general-purpose use throughout the Federal Government in presenting economic and social data. In the New England States, similar integration criteria have been applied in defining SMSA's on a city and town basis because towns rather than counties are regarded as the significant unit in this region of the country.

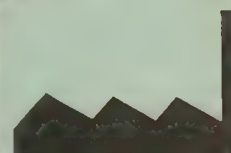
The requirement that each SMSA consist of county units (except in New England) sometimes results in the inclusion in an area of a considerable amount of territory which would not ordinarily be considered "metropolitan," much less "industrial." It is recognized that metropolitan areas could be more accurately defined in terms of smaller area segments such as minor civil divisions, but the usefulness of areas so defined would be limited by the fact that many types of economic and social data are available only on a county basis.

Each SMSA is designated by the name of the principal city of the area. In addition to the name of the principal city, the area title may include one or two additional city names.



# 1967 CENSUS OF MANUFACTURES

MC67(P)-20H-5



## INDUSTRY SERIES

### Shortening and cooking oils SIC Code 2096

**preliminary  
report**

The Shortening, Table Oils, Margarine and Other Edible Fats and Oils, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing shortening, table oils, margarine, and other edible fats and oils, not elsewhere classified, by further processing of purchased animal and vegetable oils. Establishments primarily engaged in producing corn oil are classified in industry 2046.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Shortening and Cooking Oils Industry

amounted to \$1,731.7 million, an increase of 31 percent compared with 1963. Value added by manufacture at \$392.4 million in 1967 was 48 percent more than value added in 1963. Average employment in the industry showed an increase of 12 percent from 1963 to a total of 15.1 thousand employees in 1967.

Of the \$1,731.7 million total value of shipments and other receipts of establishments classified as shortening and cooking oil manufacturing plants, \$215.5 million were products primary to other industries; and \$49.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2096.--SHORTENING AND COOKING OILS														
1967 Census....	116	93	15.1	113.9	10.6	22.8	74.4	392.4	1,329.4	1,731.7	29.3	164.8	87	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	13.6	99.4	10.2	20.5	64.2	350.4	1,352.9	1,687.6	17.3	173.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	12.9	90.5	8.6	18.6	56.5	295.0	1,188.7	1,489.1	20.3	139.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	11.8	83.2	7.6	17.0	51.7	272.3	1,050.6	1,325.7	22.7	147.7	(NA)	(NA)
1963 Census....	115	86	13.5	88.6	8.9	19.0	54.8	264.5	1,061.9	1,324.4	19.5	165.9	88	89
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*13.8	*90.9	*9.4	*20.3	*56.8	*290.2	*1,391.6	*1,672.1	*21.4	*149.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	12.8	81.1	8.8	18.4	50.5	222.4	1,070.2	1,285.3	20.3	134.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	11.7	73.0	8.2	17.9	47.2	226.5	833.6	1,051.5	17.6	117.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	12.4	73.2	8.6	18.5	45.4	229.5	958.8	1,189.6	*12.5	110.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	105	80	12.5	71.0	8.6	18.4	44.2	221.5	1,016.5	1,239.1	12.4	101.7	93	90

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued January 1970

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary****Rocco C. Siciliano, Under Secretary****Harold C. Passer, Assistant Secretary for Economic Affairs****BUREAU OF THE CENSUS George Hay Brown, Director**

the specialization ratio for the industry, was 88 percent in 1963.

other industries. This percent, called the coverage ratio, was 89 percent in 1963.

The total value of shortening and cooking oils shipped by all producers in 1967 was \$1,698.9 million of which \$1,467.2 million, or 86 percent, were shipped by plants classified in industry 2096, Shortening and Cooking Oils, while the remainder was shipped by plants classified in

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2096, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M20K, Fats and Oils, Production, Consumption, and Stocks.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2096.--SHORTENING AND COOKING OILS												
United States, total.....	116	93	15.1	113.9	10.6	22.8	74.4	392.4	1,329.4	1,731.8	29.3	13.5	264.5
Northeast.....	27	18	3.6	28.5	2.3	5.2	18.1	84.3	245.9	331.4	7.1	3.0	48.0
New Jersey.....	12	10	2.9	23.2	1.9	4.3	15.1	67.9	185.5	254.2	(D)	2.5	39.6
East North Central....	26	22	4.6	36.7	3.2	7.1	24.7	137.0	404.1	540.7	9.9	4.1	95.1
Ohio.....	5	4	1.4	12.1	0.9	2.0	7.4	38.6	124.1	162.2	1.4	1.1	25.6
Illinois.....	14	13	2.1	15.7	1.4	3.1	10.1	59.7	217.5	277.6	6.9	2.1	41.1
West North Central....	5	6	0.5	3.8	0.4	0.8	2.8	8.2	31.5	39.4	0.4	0.4	8.7
South Atlantic.....	12	12	1.1	7.1	0.7	1.6	4.1	26.6	100.2	128.9	1.0	1.1	21.4
Georgia.....	7	7	0.6	4.1	0.5	1.0	2.7	14.4	65.0	81.6	0.3	0.7	13.0
East South Central....	5	5	1.3	8.9	0.9	2.0	5.1	22.1	179.4	205.3	3.0	1.3	21.5
West South Central....	17	16	2.1	13.6	1.6	3.3	9.4	56.6	201.5	260.5	3.9	2.2	41.1
Texas.....	11	11	1.5	9.7	1.2	2.4	7.0	43.5	148.1	191.8	(D)	1.6	31.4
West.....	23	14	2.0	15.3	1.5	2.9	10.2	57.6	166.8	225.7	4.0	1.3	28.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

- Represents zero. (D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Production for all purposes including further manufacture (quantity)	Total shipments including interplant transfers			
				Quantity	Value (million dollars)		
			1967				
2096- --	SHORTENING AND COOKING OILS, TOTAL <sup>1</sup> .....		(X)	(X)	1,698.9		
20961 --	Shortening and cooking oils.....		(X)	(X)	1,242.4		
	Shortening (baking and frying fats including bulk shipments of hydrogenated oils to bakers and fryers).....	Million lbs..	3,435.8	3,456.9	556.5		
	100 percent vegetable oil shortening:						
20961 12	Consumer sizes (containers 3 lbs. or less).....	...do.....	746.6	746.0	151.8		
20961 17	Commercial sizes (containers of more than 3 lbs. and bulk).....	...do.....	1,361.7	1,405.4	221.4		
	100 percent animal fat or blends of vegetable oil and animal fat: <sup>1</sup>						
20961 18	Consumer sizes (containers 3 lbs. or less).....	...do.....	458.5	423.7	64.4		
20961 19	Commercial sizes (containers of more than 3 lbs. and bulk).....	...do.....	869.0	881.8	118.9		
20961 42	Hydrogenated oils other than baking or frying fats (for confectionery fats, mellorine fats, whipped topping, etc.).....	...do.....	1,283.4	1,268.7	184.5		
	Salad or cooking oil (fully refined and deodorized oil), produced at this plant).....	...do.....	3,188.8	3,132.4	478.6		
	Soybean cooking or salad oil:						
20961 63	Consumer sizes (1 gallon or less).....	...do.....	877.7	886.2	137.7		
20961 65	Commercial sizes (more than 1 gallon).....	...do.....	1,359.6	1,297.6	173.8		
	All other cooking or salad oil:						
20961 67	Consumer sizes (1 gallon or less).....	...do.....	353.4	364.8	74.6		
20961 68	Commercial sizes (more than 1 gallon).....	...do.....	598.1	583.8	92.5		
20961 71	Vegetable oil winter stearin.....	...do.....	75.3	44.1	6.0		
20961 00	Shortening and cooking oils, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	(X)	16.5		
20961 02	Shortening and cooking oils, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	(X)	0.3		
20962 01	Margarine.....	Million lbs..	2,125.6	2,231.4	456.5		
Product code	Product	Unit of measure	Production for all purposes including further manufacture (quantity)	Total shipments including interplant transfers		Commercial shipments	
				Quantity	Value (million dollars)	Quantity	Value (million dollars)
			1963				
2096- --	SHORTENING AND COOKING OILS, TOTAL.....		(X)	(X)	1,230.7	(X)	(NA)
20961 --	Shortening and cooking oils.....	Million lbs..	(X)	(X)	907.4	(X)	(NA)
	Shortening (baking and frying fats).....	...do.....	2,670.2	2,687.2	412.9	(X)	(NA)
20961 12	Consumer sizes (containing 3 lbs. or less).....	...do.....	771.6	768.1	145.7	(X)	(NA)
20961 17	Commercial sizes (containers of more than 3 lbs.).....	...do.....	1,868.5	1,861.6	261.2	(X)	(NA)
20961 18	Liquid shortening (all sizes).....	...do.....	30.1	57.5	6.0	(X)	(NA)
20961 21	Mono- and di-glycerides <sup>2</sup> .....	...do.....	43.1	24.3	4.7	(X)	(NA)
	Hydrogenated oils other than baking and frying fats.....	...do.....	1,213.2	1,123.1	141.3	1,029.5	128.4
20961 41	Vegetable.....	...do.....	1,126.7	1,060.9	134.4	967.9	121.5
20961 43	Animal.....	...do.....	86.5	62.2	6.9	61.6	6.9
	Salad or cooking oils, including olive oil (refined oils, bleached, deodorized, and/or winterized).....	...do.....	2,342.1	2,416.4	321.4	2,215.0	296.2
20961 53	Consumer sizes (1 gallon or less).....	...do.....	585.1	624.4	106.0	597.4	102.4
20961 55	Commercial sizes (more than 1 gallon).....	...do.....	1,757.0	1,792.0	215.4	1,617.6	193.8
20961 71	Vegetable oil winter stearin.....	...do.....	88.6	57.1	6.6	48.7	5.6
20961 00	Shortening and cooking oils, n.s.k.....		(X)	(X)	20.5	(X)	(NA)
20962 01	Margarine.....	Million lbs..	1,770.2	1,851.9	323.2	(X)	(NA)

See footnotes on next page.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

Footnotes for Table 3--Industry 2096

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Production data for shortening and cooking oils with a detailed breakdown by type of oil and end-use are collected on a monthly basis and published in Current Industrial Reports Series M20K, Fats and Oils--Production, Consumption, and Stocks. Because of reporting differences by individual companies, filing on a fiscal year basis rather than the calendar periods, and omission of a few establishments, the data shown in this report differ from that published in the current survey. The summary figures as published in Current Industrial Reports Series M20K are shown here for comparative purposes.

Code	Product	Production Census survey M20K (million pounds)	
		1967	1963
20961 12, 17, } 18, 19	Shortening--(baking and frying fats)....	3,225.7	2,584.3
20961 63, 65	Soybean, cooking or salad oil.....	1,897.3	} 2,350.3
20961 67, 68	Other salad and cooking oil.....	1,024.8	
20962 01	Margarine.....	2,114.1	1,793.6

<sup>2</sup>For 1967, product code 20961 21 is reported in industry 2843 as product code 28430 81.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2096.--SHORTENING AND COOKING OILS					
	Materials, ingredients, containers, and supplies, total <sup>1</sup> ....		(X)	1,246.5	(X)	980.9
201104	Tallow and stearin, edible.....	Million lbs.....	547.2	49.3	384.3	32.6
	Cottonseed oil:					
209111	Crude.....	..do.....	689.1	87.2	1,590.6	179.5
209121	Once-refined.....	..do.....	218.3	30.4		
209615	Fully-refined.....	..do.....	310.8	43.3		
	Soybean oil:					
209211	Crude.....	..do.....	3,922.9	424.7	4,281.4	418.4
209212	Once-refined.....	..do.....	248.6	30.9		
209616	Fully-refined.....	..do.....	863.7	105.7		
	Other oil:					
209301	Crude (exclude cottonseed and soybean).....	..do.....	874.0	115.6	(X)	( <sup>2</sup> )
209303	Once-refined (exclude cottonseed and soybean).....	..do.....	136.3	19.6	(X)	( <sup>2</sup> )
209617	Fully-refined (exclude cottonseed and soybean).....	..do.....	196.6	30.0	(X)	( <sup>2</sup> )
201151	Lard.....	..do.....	645.4	57.9	662.2	57.1
322101	Glass containers.....	1,000 gross.....	3,550.0	32.1	2,040.6	17.5
340083	Metal containers, excluding drums.....		(X)	39.9	(X)	38.0
260091	Paper and paperboard containers.....		(X)	39.2	(X)	32.9
970099	All other materials, ingredients, containers, and supplies consumed.....		(X)	124.7	(X)	191.5
976000	Materials, ingredients, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	16.0	(X)	13.3

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.<sup>2</sup>Separate materials data were not included in 1963.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2096, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

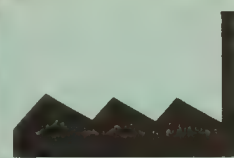
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-201-1

## INDUSTRY SERIES

### Roasted coffee

SIC Code 2095

### preliminary report

The Roasted Coffee Industry includes establishments primarily engaged in roasting coffee, and in manufacturing coffee concentrates and extracts in powdered, liquid, or frozen form.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Roasted Coffee Industry amounted to \$2,079.9 million, an increase of 11 percent compared with 1963. Value added by manufacture at \$723.4 million in 1967 was 17 percent more than

value added in 1963. Average employment in the industry showed a decrease of 6 percent from 1963 to a total of 16.1 thousand employees in 1967.

Of the \$2,079.9 million total value of shipments and other receipts of establishments classified as manufacturers of roasted coffee, \$177.1 million were products primary to other industries; and \$133.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 91 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2095.--ROASTED COFFEE													
1967 Census....	267	125	16.1	118.6	9.3	18.8	61.3	723.4	1,364.3	2,079.9	49.9	153.2	91	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	16.1	113.3	9.1	18.3	57.7	667.8	1,413.6	2,082.5	25.5	154.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	16.2	110.9	9.1	18.7	56.6	628.3	1,456.6	2,089.6	25.0	151.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	17.4	118.3	10.1	20.7	58.2	677.3	4,451.8	2,113.0	21.4	182.4	(NA)	(NA)
1963 Census....	324	133	17.2	111.4	10.1	20.5	55.6	616.4	1,256.6	1,868.1	23.5	151.1	90	99
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ....	380	(NA)	18.8	96.6	11.2	23.0	50.4	461.3	1,571.6	2,038.9	23.1	(NA)	(NA)	(NA)

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of roasted coffee shipped by all producers in 1967 was \$1,802.4 million of which \$1,769.7 million, or 98 percent, were shipped by plants classified in industry 2095, Roasted Coffee, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 99 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, Explanation of Terms )

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
	INDUSTRY 2095.--ROASTED COFFEE												
United States, total.....	267	125	16.1	118.6	9.3	18.8	61.3	723.4	1,364.3	2,079.9	49.9	17.2	616.4
New England.....	13	6	0.4	3.0	0.3	0.5	1.3	7.7	20.9	28.5	0.2	0.6	8.4
Middle Atlantic.....	70	33	5.7	45.5	3.7	7.6	27.2	243.3	439.8	676.5	21.2	5.2	197.5
New York.....	37	19	1.7	12.6	0.8	1.6	4.7	35.1	107.5	142.7	0.8	(D)	(D)
New Jersey.....	17	11	3.8	31.7	2.8	5.8	22.0	204.5	323.1	521.1	20.3	3.5	163.6
Pennsylvania.....	16	4	0.2	1.2	0.1	0.2	0.5	3.6	9.2	12.8	0.1	(D)	(D)
East North Central....	39	19	3.4	23.4	1.4	2.7	7.7	123.4	167.7	290.6	(D)	3.3	93.4
Ohio.....	11	6	0.9	6.9	0.2	0.5	1.2	17.1	38.7	56.6	0.1	1.1	13.5
Illinois.....	17	9	2.2	14.4	1.1	2.1	6.1	101.6	115.7	216.3	(D)	1.9	76.8
West North Central....	22	13	0.8	5.3	0.4	0.9	2.4	35.1	86.7	123.2	(D)	1.3	35.0
Missouri.....	11	8	0.5	3.3	0.3	0.5	1.4	15.1	50.0	65.3	1.3	0.9	18.1
South Atlantic.....	44	12	1.2	8.7	0.7	1.4	4.4	66.5	136.0	202.3	(D)	1.1	46.6
Virginia.....	3	3	0.2	0.9	0.1	0.2	0.3	2.2	4.1	6.4	0.1	(D)	(D)
East South Central....	12	4	0.3	2.2	0.1	0.3	0.9	8.0	22.6	30.8	0.1	0.5	6.5
West South Central....	30	16	2.2	14.8	1.5	2.9	8.9	119.6	264.4	382.4	(D)	2.4	127.5
Texas.....	11	6	1.0	7.0	0.8	1.5	5.1	77.5	146.1	223.5	(D)	1.3	86.7
West.....	37	21	2.1	15.8	1.2	2.3	8.5	119.8	226.2	345.6	5.3	2.7	101.4
California.....	26	14	1.7	13.2	1.1	2.1	7.7	108.0	210.6	318.2	(D)	2.3	93.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2095- --	ROASTED COFFEE, TOTAL.....		(X)	1,802.4	(X)	1,602.7
20951 --	Roasted coffee, whole bean or ground.....	Million pounds	1,984.9	1,384.0	2,039.2	1,206.4
20951 11	Whole bean.....	do.....	171.9	102.5	205.1	99.0
20951 15	Ground.....	do.....	1,805.7	1,277.0	1,821.3	1,099.3
20951 00	Roasted coffee, n.s.k.....	do.....	7.3	4.5	12.8	8.1
20952 --	Concentrated coffee.....		167.3	365.6	(X)	396.3
20952 15	Powdered.....	Million pounds	167.3	365.6	188.3 (NA)	394.2
20952 19	Other concentrated coffee.....	do.....				
20950 00	Roasted and concentrated coffee, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	49.6	(X)	(X)
20950 02	Roasted and concentrated coffee, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	3.2		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2095.--ROASTED COFFEE					
	Materials, containers, and supplies, total.....		(X)	1,269.0	(X)	1,177.8
012285	Green coffee.....	1,000 cwt.....	25,117.5	990.6	27,246.9	932.1
322101	Glass containers.....	1,000 gross.....	3,183.3	20.8	3,352.6	21.4
970099	All other materials, ingredients, containers and supplies consumed, including materials, n.s.k.....		(X)	220.8	(X)	224.3
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	36.8	(X)	(X)

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2095, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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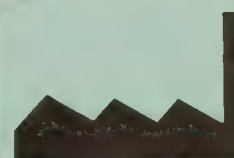
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-201-2

## INDUSTRY SERIES

### Manufactured ice

SIC Code 2097

preliminary  
report

The Manufactured Ice Industry includes establishments primarily engaged in manufacturing ice for sale. Ice plants operated by public utility companies are included in this industry. Establishments primarily engaged in manufacturing dry ice are classified in industry 2813, and the harvesting and storage of natural ice for sale in trade industries.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Manufactured Ice Industry amounted to \$100.3 million, a decrease of 18 percent compared with 1963. Value added by manufacture

at \$76.3 million in 1967 was 15 percent less than value added in 1963. Average employment in the industry showed a decrease of 26 percent from 1963 to a total of 8.0 thousand employees in 1967.

Of the \$100.3 million total value of shipments and other receipts of establishments classified as manufactured ice, \$0.9 million were products primary to other industries; and \$14.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 99 percent in 1963.

The total value of manufactured ice shipped by all producers in 1967 was \$85.1 million of which \$85.1 million, or 100 percent, were shipped

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total  (number)	With 20 employees or more  (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)							
	INDUSTRY 2097.—MANUFACTURED ICE													
1967 Census....	953	110	8.0	38.4	5.5	10.5	23.5	76.3	24.3	100.3	4.8	2.4	99	100
1966 ASM <sup>1</sup> .....	(NA)	(NA)	10.1	44.6	6.5	14.5	27.0	98.0	26.6	124.2	*5.3	3.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.4	43.7	6.6	14.6	26.8	93.7	30.9	125.6	*4.2	1.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	10.6	43.3	6.4	13.8	24.8	89.4	26.9	116.4	*3.9	2.6	(NA)	(NA)
1963 Census....	1,199	135	10.8	42.9	6.7	14.1	25.9	90.2	32.4	122.5	5.7	2.7	99	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	12.6	47.6	7.3	15.5	26.8	103.4	33.3	136.6	3.6	3.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	13.2	48.3	7.5	15.8	27.0	101.8	37.6	139.0	3.2	4.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	13.6	49.0	7.8	16.4	28.0	100.1	37.7	137.7	*2.4	4.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	49.4	8.6	18.3	30.1	105.9	38.9	145.3	*3.3	3.8	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,570	170	14.6	52.5	9.0	18.9	31.1	107.5	42.1	149.6	6.4	4.4	99	99

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

## 1967 CENSUS OF MANUFACTURES

by plants classified in industry 2097, Manufactured Ice. This percent, called the coverage ratio, was 100 percent in 1963.

2, and 4 may be compared with the product statistics in table 3.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2097.—MANUFACTURED ICE													
United States, total.....	953	110	8.0	38.4	5.5	10.5	23.5	76.3	24.3	100.3	4.8	10.8	90.2
New Jersey.....	16	1	0.1	0.5	0.1	0.1	0.4	0.7	0.3	1.0	0.1	0.2	2.8
Ohio.....	18	1	0.2	0.9	0.1	0.2	0.6	2.0	0.4	2.4	(D)	0.3	2.5
Indiana.....	20	2	0.2	0.8	0.1	0.2	0.4	1.2	0.5	1.7	0.1	0.2	1.2
Missouri.....	27	4	0.3	1.1	0.2	0.3	0.7	2.4	0.5	3.0	(D)	0.4	2.6
Kansas.....	20	1	0.1	0.7	0.1	0.2	0.6	1.5	0.5	2.0	(Z)	0.2	2.2
South Atlantic.....	227	24	1.8	7.7	1.1	2.2	4.1	15.4	5.8	21.1	1.0	2.6	16.8
Maryland.....	10	3	0.1	0.5	0.1	0.2	0.3	1.0	0.3	1.3	(D)	0.1	1.0
Virginia.....	15	3	0.2	0.7	0.1	0.1	0.3	1.0	0.7	1.7	(Z)	0.3	1.5
North Carolina.....	43	2	0.2	0.9	0.1	0.2	0.4	1.6	1.1	2.7	0.1	0.4	2.1
South Carolina.....	21	2	0.1	0.6	0.1	0.2	0.3	1.1	0.6	1.8	(Z)	0.2	1.2
Georgia.....	55	1	0.3	1.3	0.2	0.3	0.6	2.8	1.2	4.1	0.5	0.6	3.1
Florida.....	69	10	0.7	2.8	0.5	1.0	1.8	6.3	1.5	7.8	0.4	0.9	6.6
East South Central....	109	6	0.6	2.4	0.4	0.7	1.3	4.8	1.7	6.5	0.3	0.9	5.6
Kentucky.....	15	1	0.1	0.2	0.1	0.1	0.1	0.5	0.2	0.7	(D)	0.1	0.7
Tennessee.....	27	1	0.2	0.8	0.1	0.2	0.4	1.3	0.4	1.7	(D)	0.3	2.0
Alabama.....	38	2	0.2	0.8	0.1	0.2	0.4	1.8	0.7	2.5	0.1	0.3	1.6
Mississippi.....	29	2	0.2	0.6	0.1	0.2	0.4	1.2	0.5	1.7	0.1	0.2	1.3
West South Central....	225	21	1.6	6.4	1.1	2.1	3.8	11.6	4.1	15.7	0.8	2.3	15.3
Arkansas.....	33	1	0.2	0.7	0.1	0.2	0.4	1.4	0.5	1.8	0.1	0.4	2.0
Louisiana.....	45	3	0.3	1.3	0.2	0.5	0.9	2.3	0.7	3.1	0.2	0.4	2.5
Oklahoma.....	23	1	0.1	0.5	0.1	0.2	0.4	1.0	0.4	1.3	(Z)	0.2	1.3
Texas.....	124	16	1.0	3.9	0.6	1.2	2.1	7.0	2.5	9.5	0.5	1.3	9.5
Mountain.....	39	7	0.4	2.2	0.3	0.6	1.4	3.9	1.4	5.3	(D)	0.6	5.7
Pacific.....	84	20	1.2	6.6	0.8	1.2	3.9	15.8	3.8	19.5	0.9	1.1	15.2
California.....	71	17	1.1	5.8	0.7	1.1	3.3	13.7	3.4	17.0	(D)	1.0	13.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
2097- --	MANUFACTURED ICE, TOTAL.....		(X)	85.1	(X)	94.8
20970 11	Canned or block ice.....	1,000 short tons	4,938.4	40.7	6,554	54.2
20970 51	Cubed, crushed, or other processed ice.....	...do.....	894.7	17.7	1,002	16.4
20970 00	Manufactured ice, n.s.k. (For companies with more than 10 employees. See Note).....		(X)	21.5	}	(X) 24.2
20970 02	Manufactured ice, n.s.k. (For companies with less than 10 employees. See Note).....		(X)	5.2		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(X) Not applicable.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

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**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE  
Bureau of the Census**

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Macaroni and spaghetti

SIC Code 2098

The Macaroni, Spaghetti, Vermicelli, and Noodles Industry includes establishments primarily engaged in manufacturing dry macaroni, spaghetti, vermicelli, and noodles. Establishments primarily engaged in manufacturing canned macaroni, spaghetti, etc., are classified in industry 2032.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Macaroni and Spaghetti Industry amounted to \$266.0 million, an increase of 19 percent compared with 1963. Value added by

manufacture at \$119.7 million in 1967 was 25 percent more than value added in 1963. Average employment in the industry showed an increase of 3 percent from 1963 to a total of 7.5 thousand employees in 1967.

Of the \$266.0 million total value of shipments and other receipts of establishments classified as manufacturers of macaroni and spaghetti products, \$7.6 million were products primary to other industries; and \$13.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2098.--MACARONI AND SPAGHETTI													
1967 Census....	205	75	7.5	43.2	5.4	11.0	25.4	119.7	148.6	266.0	5.2	20.9	97	99
1966 ASM <sup>1</sup> .....	(NA)	(NA)	7.4	40.1	5.2	10.9	23.6	106.2	132.0	237.6	8.4	19.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	7.8	40.0	5.3	11.3	24.1	110.0	129.2	238.3	7.0	18.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	7.3	38.1	5.0	10.6	21.9	105.4	129.5	234.6	*7.0	15.8	(NA)	(NA)
1963 Census....	221	70	7.3	35.5	5.1	10.4	21.2	96.0	126.5	222.9	4.8	14.8	96	94
1962 ASM <sup>1</sup> .....	(NA)	(NA)	6.7	31.8	4.8	9.4	18.5	82.6	118.6	200.8	10.0	14.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	6.9	32.4	5.0	10.2	19.1	79.7	119.6	199.6	4.5	14.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	6.7	30.0	4.9	9.6	17.4	76.3	118.4	194.5	5.1	13.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	6.8	28.9	4.9	9.3	16.2	73.5	119.3	192.3	4.7	13.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	214	76	6.8	27.9	4.9	9.6	16.4	67.1	113.8	180.2	5.3	13.0	97	98

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of macaroni and spaghetti products shipped by all producers in 1967 was \$248.3 million of which \$244.8 million, or 99 percent, were shipped by plants classified in industry 2098, Macaroni and Spaghetti, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 94 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2098.--MACARONI AND SPAGHETTI													
United States, total.....	205	75	7.5	43.2	5.4	11.0	25.4	119.7	148.6	266.0	5.2	7.3	96.0
New England.....	19	5	0.6	3.2	0.4	0.9	1.8	8.2	11.6	19.7	0.6	0.5	5.7
Middle Atlantic.....	53	22	2.8	16.9	2.0	4.3	9.8	45.2	60.8	104.6	2.1	2.9	38.8
Pennsylvania.....	13	7	0.8	4.1	0.6	1.2	2.5	13.3	15.7	28.5	0.7	0.7	10.6
East North Central....	35	16	1.3	6.2	1.0	1.9	4.5	21.9	22.1	43.7	1.1	1.2	14.2
Ohio.....	8	2	0.1	0.6	0.1	0.2	0.3	2.2	2.5	4.7	0.1	(D)	(D)
Illinois.....	20	11	0.9	4.2	0.7	1.3	3.1	15.5	13.6	28.8	0.9	0.7	8.5
West North Central....	16	9	0.9	5.6	0.6	1.2	2.8	16.8	20.7	37.3	0.5	0.8	11.9
South.....	21	9	0.7	3.4	0.5	1.0	2.0	8.4	9.7	18.1	0.2	0.6	7.0
West.....	61	14	1.3	7.9	0.9	1.7	4.5	19.2	23.8	42.6	0.6	1.3	18.5
California.....	38	8	0.9	5.6	0.6	1.2	3.2	13.5	17.0	30.2	0.4	0.8	14.1
Hawaii.....	10	2	0.1	0.5	0.1	0.2	0.4	0.8	0.7	1.5	(D)	0.1	0.5

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



**TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963**

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2098- --	MACARONI AND SPAGHETTI, TOTAL.....	Millions lbs..	1,245.1	248.3	1,207.5	215.9
20980 11	Macaroni, spaghetti, vermicelli, and other macaroni products of all shapes, sizes and types, except canned.....	...do.....	1,034.6	198.1	994.5	167.7
20980 51	Noodle products of all shapes, sizes, and types, except canned....	...do.....	126.5	33.4	164.6	39.5
20980 00	Macaroni and spaghetti, n.s.k. (For companies with more than 10 employees. See Note.).....	...do.....	<sup>1</sup> 63.5	12.7	148.4	8.7
20980 02	Macaroni and spaghetti, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	<sup>1</sup> 20.5	4.1		

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n.s.k. Not specified by kind.

<sup>1</sup>Quantity estimated based on quantity-value relationship reported for other products.

**TABLE 4. Materials Consumed, by Kind: 1967 and 1963**

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2098.--MACARONI AND SPAGHETTI					
	Materials, containers, and supplies, total.....	.....	(X)	137.9	(X)	115.9
204115	Semolina and durum flour.....	1,000 cwt.....	9,699.5	72.9	9,881.6	63.2
204119	Farina and other wheat flour.....	...do.....	822.9	5.5	990.7	6.3
970099	All other materials, ingredients, containers and supplies consumed, including materials n.s.k.....	.....	(X)	59.5	(X)	46.3

n.s.k. Not specified by kind.

(X) Not applicable.

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**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products**--In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture**--This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment**--For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories**--Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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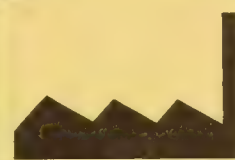
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67-201-4

## INDUSTRY SERIES

### Food preparations, n.e.c.

SIC Code 2099

**preliminary  
report**

The Food Preparations, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing prepared foods and miscellaneous food specialties, not elsewhere classified, such as baking powder, yeast, and other leavening compounds; chocolate and cocoa products except confectionery, made from purchased materials; peanut butter; packaged tea; ground spices; potato, corn, and other chips; and vinegar and cider.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Food Preparations, N.E.C., Industry amounted to \$2,411.0 million, an increase of 34 percent compared with 1963. Value added by manufacture at \$1,106.7 million in 1967 was 30 percent more than value added in 1963. Average employment in the industry showed an increase of 13 percent from 1963 to a total of 61.4 thousand employees in 1967.

Of the \$2,411.0 million total value of shipments and other receipts of establishments classified as manufacturers of food preparations, \$270.7 million were products primary to other industries; and \$148.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 88 percent of the total manufactured product shipments,

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(per cent)	(per cent)
INDUSTRY 2099.--FOOD PREPARATIONS, N.E.C.														
1967 Census.....	2,075	636	61.4	352.9	42.9	83.6	197.8	1,106.7	1,315.3	2,411.0	86.6	214.2	88	80
1966 ASM <sup>1</sup> .....	(NA)	(NA)	59.1	316.1	39.6	79.5	174.6	1,023.2	1,178.8	2,206.0	91.4	201.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	56.5	294.4	38.8	78.3	165.6	940.5	1,122.6	2,061.6	61.2	200.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	57.5	293.4	37.3	73.0	154.3	904.8	1,006.3	1,900.3	70.0	194.2	(NA)	(NA)
1963 Census <sup>2</sup> ....	2,190	547	54.3	271.3	35.6	71.0	145.3	849.6	951.8	1,797.3	62.1	174.1	91	78
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> <sup>3</sup>	2,307	(NA)	49.2	205.9	34.5	67.5	117.7	604.7	797.4	1,393.2	31.1	(NA)	(NA)	(NA)

(NA) Not available. n.e.c. Not elsewhere classified.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not comparable in previous years.

Issued January 1970

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

primary and secondary. This percent, called the specialization ratio for the industry, was 91 percent in 1963.

The total value of food preparations, n.e.c., shipped by all producers in 1967 was \$2,500.6 million of which \$1,992.3 million, or 80 percent, were shipped by plants classified in industry 2099, Food Preparations, N.E.C., while the remainder was shipped by plants classified in other

industries. This percent, called the coverage ratio, was 78 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



## 1967 CENSUS OF MANUFACTURES

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TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2099.--FOOD PREPARATIONS, N.E.C.													
United States, total.....	2,075	636	61.4	352.9	42.9	83.6	197.8	1,106.7	1,315.3	2,411.0	86.6	54.3	849.6
New England.....	116	38	2.6	14.0	2.0	3.5	8.0	37.7	50.5	87.7	2.2	2.6	39.9
Maine.....	11	8	0.4	2.2	0.3	0.5	1.1	4.2	5.2	9.4	(D)	0.3	2.5
Massachusetts.....	65	22	1.6	8.6	1.2	2.2	4.9	21.8	34.4	55.8	1.5	1.7	28.9
Rhode Island.....	10	3	0.2	0.9	0.2	0.3	0.6	1.9	2.5	4.4	0.1	(D)	(D)
Middle Atlantic.....	375	114	11.0	63.9	8.3	16.4	39.2	187.8	224.2	410.0	8.4	10.5	187.5
New York.....	182	49	4.2	24.0	3.4	6.8	16.1	75.3	92.9	166.4	2.1	4.4	89.8
New Jersey.....	68	32	2.5	16.8	1.7	3.3	9.3	55.3	58.6	113.4	2.5	2.3	55.4
Pennsylvania.....	125	33	4.3	23.1	3.2	6.3	13.9	57.2	72.7	130.2	3.8	3.8	42.4
East North Central.....	412	140	13.8	89.9	9.7	19.4	50.0	267.8	313.9	580.5	40.7	13.4	236.7
Ohio.....	117	30	3.3	20.6	2.5	4.7	11.7	66.4	68.2	134.6	10.7	3.0	45.7
Indiana.....	43	18	1.5	8.0	1.0	2.1	4.5	18.0	30.3	49.5	1.8	1.4	18.1
Illinois.....	138	55	6.2	45.3	4.2	8.8	24.9	147.9	165.0	310.9	(D)	5.3	132.8
Michigan.....	69	22	1.6	9.4	1.1	2.0	4.6	19.4	28.4	47.5	1.9	2.2	21.8
Wisconsin.....	45	15	1.2	6.6	0.9	1.8	4.3	16.1	22.0	38.0	(D)	1.3	18.2
West North Central.....	140	47	4.3	25.2	2.7	5.2	11.9	81.6	79.0	160.4	5.6	3.8	48.7
Minnesota.....	21	9	1.1	6.7	0.8	1.5	3.5	30.0	25.1	55.1	3.0	0.8	10.9
Iowa.....	26	8	0.6	3.6	0.4	0.7	1.7	10.2	11.2	21.8	0.2	0.7	9.5
Missouri.....	60	18	1.7	9.8	1.0	2.0	4.8	26.3	31.0	56.6	1.8	1.4	19.2
Nebraska.....	9	5	0.3	2.0	0.2	0.4	0.8	5.0	5.0	10.1	0.2	0.3	4.7
Kansas.....	17	4	0.5	2.6	0.2	0.4	0.8	9.3	5.2	14.5	0.5	0.4	3.6
South Atlantic.....	222	77	8.9	47.4	6.3	12.8	27.8	199.2	272.8	469.1	7.2	5.9	96.2
Maryland.....	25	11	1.3	7.0	1.1	2.2	5.4	23.7	47.2	70.0	1.2	1.2	23.3
North Carolina.....	43	15	1.1	5.0	0.6	1.3	2.2	10.1	15.0	25.2	0.8	0.9	7.2
South Carolina.....	21	1	0.1	0.4	0.1	0.1	0.2	2.2	3.2	5.4	(Z)	(D)	(D)
Georgia.....	40	22	2.5	12.1	1.8	3.8	7.1	30.6	63.3	93.5	1.1	1.9	24.5
East South Central.....	100	28	2.7	14.6	1.6	3.3	6.5	41.4	61.3	102.5	2.5	2.9	31.9
Kentucky.....	21	6	0.7	4.2	0.4	0.8	2.1	12.5	27.7	40.2	0.3	0.9	10.2
Tennessee.....	45	13	1.1	5.6	0.8	1.6	2.8	15.5	22.2	37.7	1.7	1.4	14.1
Alabama.....	23	8	0.8	4.6	0.4	0.7	1.4	12.9	10.3	22.9	0.5	0.6	7.3
West South Central.....	242	65	5.4	26.4	3.9	7.6	16.1	81.4	98.2	180.4	9.2	5.5	66.5
Arkansas.....	16	4	0.2	1.0	0.2	0.3	0.6	3.7	3.1	6.5	0.3	0.3	2.3
Louisiana.....	35	13	0.8	3.6	0.5	1.0	2.0	11.2	13.0	25.3	0.5	1.0	8.9
Oklahoma.....	19	6	0.5	2.4	0.3	0.6	1.3	6.5	8.0	14.5	0.3	0.5	2.6
Texas.....	172	42	3.9	19.5	2.9	5.7	12.2	60.1	74.1	134.1	8.1	3.8	52.7
Mountain.....	109	27	1.9	8.6	1.4	2.3	4.5	21.4	25.8	46.7	1.2	1.8	17.9
Montana.....	9	1	0.1	0.4	0.1	0.1	0.2	0.9	0.7	1.7	(Z)	(D)	(D)
Colorado.....	30	11	0.8	3.7	0.6	1.1	2.0	9.5	12.4	21.5	0.7	0.8	6.4
Arizona.....	25	5	0.2	1.1	0.2	0.3	0.5	2.5	3.3	5.8	0.1	0.3	2.6
Utah.....	12	3	0.3	1.6	0.2	0.3	0.6	3.1	4.3	7.4	(D)	0.3	5.7
Pacific.....	359	100	10.7	62.9	6.9	13.0	33.8	188.4	189.4	373.7	9.6	8.0	124.4
Washington.....	30	9	1.0	5.5	0.7	1.3	3.1	13.8	13.9	27.7	0.4	0.7	12.2
California.....	269	79	8.9	53.2	5.6	10.8	28.5	165.2	162.3	323.4	8.9	6.6	103.6
Hawaii.....	33	3	0.3	1.2	0.2	0.3	0.7	2.9	2.8	5.7	0.1	0.3	2.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers				
			1967		1963		
			Quantity	Value (million dollars)	Quantity	Value (million dollars)	
2099- --	FOOD PREPARATIONS, N.E.C., TOTAL.....		(X)	2,500.6	(X)	1,962.0	
20991 --	Desserts (ready-to-mix).....	Million lbs....	513.7	218.2	513.9	191.6	
	Cornstarch base:						
20991 13	Consumer sizes (less than 1 lb.).....	..do.....	158.8	67.8	95.0	36.0	
20991 15	Commercial sizes (1 lb. and over).....	..do.....	21.1	6.6	28.5	9.8	
	Gelatin base:						
20991 53	Consumer sizes (less than 1 lb.).....	..do.....	195.1	92.0	242.5	99.6	
20991 55	Commercial sizes (1 lb. and over).....	..do.....	71.6	22.5	48.3	16.2	
	Other base:						
20991 93	Consumer sizes (less than 1 lb.).....	..do.....	161.6	127.0	99.5	30.0	
20991 95	Commercial sizes (1 lb. and over).....	..do.....					
20991 00	Desserts (ready-to-mix), n.s.k.....	..do.....					
20992 --	Chips, (Potato, corn, etc.).....	..do.....	1,200.0	648.0	843.2	466.0	
	Potato chips:						
20992 12	Plain.....	..do.....	756.2	424.8	573.2	328.8	
20992 14	Flavored.....	..do.....	57.3	36.3	39.3	26.2	
20992 61	Corn chips, curls, and related products.....	..do.....	286.9	128.1	148.8	63.3	
20992 98	Other chips, sticks, etc. (bacon rinds, popcorn (except candied) and other salted snacks(except crackers).....	..do.....	77.2	46.7	63.0	37.2	
20992 00	Chips, sticks, n.s.k.....	..do.....	22.4	12.1	19.0	10.5	
20993 --	Sweetening sirups and molasses.....	..do.....	952.7	137.9	974.5	136.5	
	Containing corn syrup:						
20993 12	Nondietetic.....	..do.....	665.5	79.6	567.6	70.7	
20993 22	Dietetic.....	..do.....	0.6	0.2			
	Not containing corn syrup:						
20993 14	Nondietetic.....	..do.....	262.8	47.4	406.9	65.8	
20993 24	Dietetic.....	..do.....	23.7	10.7			
20994 --	Baking powder and yeast.....	..do.....	483.9	79.0	431.7	80.8	
	Baking powder:						
20994 11	Consumer sizes (less than 5 lbs.).....	..do.....	35.8	7.5	30.9	7.0	
20994 15	Commercial sizes (5 lbs. and over).....	..do.....	79.4	11.5	54.1	6.5	
	Compressed yeast:						
20994 21	Consumer sizes (2 oz. or less).....	..do.....	1218.0	133.4	292.5	59.3	
20994 25	Commercial sizes (over 2 oz.).....	..do.....					
	Active dry yeast:						
20994 33	Consumer sizes (4 oz. or less).....	Million lbs. (dry basis)...	1102.9	118.4			
20994 35	Commercial sizes (over 4 oz.).....	..do.....					
	Other yeast products (brewers, primary grown yeast, including torula extracts and other yeast products):						
20994 51	For food purposes.....	..do.....	20.8	5.6	17.7	5.0	
20994 57	For feed pruposes.....	..do.....	20.8	1.6	32.6	2.3	
20994 00	Baking powder and yeast, n.s.k.....	..do.....	26.2	1.0	23.7	0.7	
20996 --	Vinegar and cider.....	Million gals...	154.5	57.6	161.3	53.9	
20996 11	Cider.....	..do.....	19.9	9.9	7.7	4.8	
	Vinegar, fermented:						
20996 52	Consumer sizes (1 gallon or less).....	..do.....	38.7	22.6	35.5	21.3	
20996 53	Commercial sizes (more than 1 gallon).....	..do.....	25.5	5.1	35.0	6.5	
	Vinegar, distilled:						
20996 54	Consumer sizes (1 gallon or less).....	..do.....	7.1	6.9	5.8	6.1	
20996 56	Commercial sizes (more than 1 gallon).....	..do.....	53.0	9.3	52.5	8.6	
20996 00	Vinegar and cider, n.s.k.....	..do.....	10.3	3.8	24.8	6.6	
20998 --	Chocolate and cocoa products, except confectionery (made from purchased chocolate or cocoa) (See also code 20728).....	Million lbs....	172.2	52.2	194.2	51.1	

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2099- --	FOOD PREPARATIONS, N.E.C.--Continued					
20999 --	Other food preparations, n.e.c.....		(X)	1,078.2	(X)	883.3
20999 11	Coconut, sweetened, creamed, and toasted.....	Million lbs....	66.2	23.8	( <sup>3</sup> )	( <sup>3</sup> )
20999 25	Blended honey (including churned).....	..do.....	68.4	17.4	57.7	14.8
	Spices:					
	Pepper, white and black:					
20999 31	Consumer sizes (less than 1 lb.).....	..do.....	26.0	25.7	24.2	22.4
20999 33	Commercial sizes (1 lb. and over).....	..do.....	10.5	5.4	18.4	8.3
	Other spices:					
20999 38	Consumer sizes (less than 1 lb.).....	..do.....	100.5	103.0	65.6	67.9
20999 39	Commercial sizes (1 lb. and over).....	..do.....	76.0	40.4	117.4	54.2
	Peanut butter:					
20999 44	Consumer sizes.....	..do.....	389.0	150.1	382.0	140.6
20999 46	Commercial sizes and bulk.....	..do.....	52.2	17.5		
20999 51	Pectin (100 grade, dry basis).....	..do.....	8.0	9.6	15.5	14.4
	Perishable prepared foods sold in bulk or packages (not frozen):					
20999 63	Salads.....		(X)	33.6	(X)	25.8
20999 65	Sandwiches, made from bread.....	1,000 dozen	10.5	30.6	7.4	18.6
20999 68	Other perishable prepared foods, including meat and poultry pies, other cooked foods, popcorn (except candied), etc.....		(X)	91.5	(X)	91.6
20999 66	Whipped topping, nonbutterfat base.....	Million quarts.	113.9	52.4	52.9	21.6
	Tea, in consumer packages:					
20999 82	Packed in tea bags.....	Million lbs....	84.5	147.3	132.8	181.2
20999 83	Powdered.....	..do.....	31.5	89.3		
20999 84	Other.....	..do.....	30.9	17.5		
20999 85	Unpopped popcorn, in consumer packages.....	..do.....	165.8	20.2	87.7	9.4
20999 91	Cracker sandwiches, made from purchased crackers.....	..do.....	29.4	12.2	31.0	16.4
	Frosting mixes:					
20999 93	Consumer sizes.....	..do.....	110.8	42.2	113.5	46.4
20999 94	Commercial sizes.....	..do.....	12.3	3.4		
20999 00	Other food preparations, n.e.c., n.s.k.....		(X)	145.1	(X)	149.9
20990 00	Miscellaneous foods, n.s.k. (For companies with 10 or more em- ployees. See Note.).....		(X)	194.4	(X)	98.9
20990 02	Miscellaneous foods, n.s.k. (For companies with less than 10 em- ployees. See Note.).....		(X)	35.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(X) Not applicable.

<sup>1</sup>Product lines are combined to avoid disclosing figures for individual companies.

<sup>2</sup>Quantity estimated based on quantity-value relationship of other products in the product class.

<sup>3</sup>Data included with product code 2099900 to avoid disclosing figures for individual companies.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2099.--FOOD PREPARATIONS, N.E.C.					
	Materials, containers, and supplies, total.....		(X)	1,163.9	(X)	838.5
012301	Fresh vegetables.....	1,000 short tons..	1,712.1	108.6	1,145.2	64.6
012203	Fresh fruits.....	..do .....	(X)	4.5	(X)	3.2
011921	Peanuts, in shell.....	Million pounds....	(NA)	9.5	34.8	6.4
011923	Shelled peanuts.....	..do .....	317.0	63.2	( <sup>1</sup> )	( <sup>1</sup> )
204602	Corn sirup.....	..do .....	146.4	8.5	172.0	10.8
209006	Fats and oils, all types (purchased as such).....	..do .....	492.6	79.8	379.4	52.7
204110	Wheat flour.....	1,000 cwt.....	1,541.9	9.0	1,735.2	9.1
206011	Sugar (cane and beet) in terms of sugar solids.....	..do .....	5,464.5	53.6	5,304.9	52.4
012285	Green coffee.....	..do .....	326.1	12.6	290.6	9.5
322101	Glass containers.....	1,000 gross.....	7,557.8	45.9	5,258.7	33.9
970099	All other materials, ingredients, containers, and supplies consumed.....		(X)	640.7	(X)	465.0
976000	Materials, n.s.k. <sup>2</sup> .....		(X)	128.0	(X)	130.8

(NA) Not available. (X) Not applicable.

<sup>1</sup>Included in product code 970099, all other materials.<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this included estimates for companies that were not mailed report forms.



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The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2099, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--** All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--** This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--** The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--** In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--** The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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*Current Industrial Reports present data for industries in the following broad categories:*

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

preliminary  
report

## Cigarettes

SIC Code 2111

The Cigarettes Industry includes establishments engaged in manufacturing cigarettes.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of production and miscellaneous receipts of establishments classified in the Cigarettes Industry amounted to \$3,044.7 million, an increase of 14.7 percent compared with 1963. Value added by manufacture at \$1,639.7 million in 1967 was 22.1 percent more than value added in 1963. Average employment in the industry showed an increase of 3.0 percent from

1963 to a total of 36.6 thousand employees in 1967.

The total value of cigarettes shipped by all producers in 1967 was \$2,941.8 million of which 100 percent, were shipped by plants classified in industry 2111, Cigarettes, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2111.-CIGARETTES													
1967 Census....	16	14	36.6	221.4	32.8	62.8	187.7	1,639.7	1,405.4	3,044.7	33.8	1,423.9	97	100
1966 ASM <sup>1</sup> .....	(NA)	(NA)	35.6	209.3	31.9	61.3	178.5	1,483.1	1,380.5	2,860.3	32.0	1,359.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	35.9	198.9	32.3	60.5	171.1	1,366.1	1,353.9	2,719.9	33.3	1,383.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	34.8	185.8	31.5	62.3	162.4	1,315.5	1,328.0	2,642.8	37.1	1,246.8	(NA)	(NA)
1963 Census....	14	14	35.6	183.0	32.0	63.0	158.8	1,310.3	1,343.4	2,655.3	29.7	1,226.5	97	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	35.4	179.2	31.7	62.6	152.6	1,248.4	1,303.1	2,548.3	34.7	1,267.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	36.1	171.6	32.6	63.6	147.8	1,220.9	1,275.4	2,495.8	29.7	1,273.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	36.5	165.6	33.2	64.2	143.3	1,156.3	1,243.9	2,398.7	32.3	1,135.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	36.8	159.7	33.4	65.1	139.9	1,115.4	1,200.5	2,316.0	27.8	1,075.6	(NA)	(NA)
1958 Census <sup>2</sup> ...	19	16	33.8	142.4	31.0	60.6	125.8	1,058.6	1,102.2	2,160.0	20.5	993.8	99	100

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2111.--CIGARETTES												
United States, total.....	16	14	36.6	221.4	32.8	62.8	187.7	1,639.7	1,405.4	3,044.7	33.8	35.6	1,310.3
South Atlantic.....	12	10	28.3	170.6	25.2	48.1	143.6	1,281.6	1,108.7	2,390.1	24.9	28.3	1,064.6
North Carolina.....	5	5	18.5	108.5	17.0	32.0	94.9	898.7	769.4	1,668.0	(D)	19.5	792.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production including interplant transfers			
			1967		1963	
			Quantity	Value excluding excise tax (million dollars)	Quantity	Value excluding excise tax (million dollars)
2111- --	CIGARETTES, TOTAL.....	Millions.....	576,700	2,941.8	550,793	2,568.2
	Filter tips:					
21110 15	70 millimeters long.....	...do.....	1,297	6.3	1,962	9.2
21110 17	80 millimeters long.....	...do.....	30,607	160.0	47,161	223.1
21110 19	85 or more millimeters long.....	...do.....	385,420	1985.4	270,093	1,283.7
	Nonfilter tips:					
21110 51	70 millimeters long.....	...do.....	79,398	386.0	128,674	568.4
21110 53	80 millimeters long.....	...do.....	-	-	-	-
21110 55	85 or more millimeters long.....	...do.....	79,978	404.1	102,903	483.9

- Represents zero.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2111.--CIGARETTES				
	Materials, containers, and supplies, total.....	(X)	1388.6	(X)	1,330.5
011410	Unstemmed leaf tobacco, including green tobacco not packed.....	96.3	89.1	-	-
214111	Unstemmed leaf tobacco, redried and packed.....				
214123	Stemmed leaf tobacco.....				
214124	Processed sheet tobacco and homogenized tobacco, finished weight basis.....				
214129	Other tobacco materials.....	79.4	960.9	130.8	100.4
282121	Cellophane (tubes, sheets, rolls).....	(NA)	16.7	(NA)	(NA)
260012	Paper and paperboard products, including shipping containers, setup and folding cartons.....	(X)	0.8	84.4	13.8
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	26.8	(X)	25.7
		(X)	83.0	(X)	83.2
		(X)	211.3	(X)	179.3

- Represents zero. (NA) Not available. (X) Not applicable.



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# Appendix

## EXPLANATION OF TERMS

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**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Cigars

SIC Code 2121

The Cigars Industry includes establishments engaged in manufacturing cigars. Retail stores producing cigars are classified in trade industries.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of production and miscellaneous receipts of establishments classified in the Cigar Industry amounted to \$367.0 million, an increase of 2 percent compared with 1963. Value added by manufacture at \$197.7 million in 1967 was 2 percent more than value added in

1963. Average employment in the industry showed a decrease of 8 percent from 1963 to a total of 19,1 thousand employees in 1967.

Of the \$367.0 million total value of products and other receipts of establishments classified as manufacturers of cigars, \$7.3 million were receipts for miscellaneous activities. The industry production of primary products represented 100 percent of the total manufactured product produced, primary and secondary. This percent, called the specialization ratio for the industry, was 100 percent in 1963.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of production  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2121.--CIGARS													
1967 Census....	3149	64	19.1	71.6	17.3	31.9	59.1	197.7	169.5	367.0	5.5	55.1	100	97
1966 ASM <sup>1</sup> .....	(NA)	(NA)	19.4	71.4	17.9	33.0	61.0	204.1	180.6	378.8	7.0	69.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	21.0	76.4	19.3	35.9	63.8	220.8	185.8	405.0	9.6	67.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	23.0	80.8	21.4	41.9	69.5	219.9	197.7	416.2	7.6	68.9	(NA)	(NA)
1963 Census....	193	82	20.7	68.1	19.0	35.0	57.8	193.0	166.0	358.5	4.2	61.8	100	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	22.2	71.4	20.2	37.3	59.1	198.8	170.0	368.9	3.6	64.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	23.4	73.2	21.3	39.8	60.7	186.8	172.3	359.3	3.2	62.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	26.3	79.3	24.2	44.8	66.6	197.2	180.9	378.2	4.1	62.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	28.4	81.2	26.0	48.5	68.9	199.7	179.8	381.2	6.1	63.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	283	114	29.3	81.9	27.0	49.9	70.1	183.1	172.9	355.0	7.0	62.8	100	100

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

1967 CENSUS OF MANUFACTURES  
TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of production	Capital expenditures, new	All employees	Value added by manufacture
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
	INDUSTRY 2121.--CIGARS												
United States, total.....	149	64	19.1	71.6	17.3	31.9	59.1	197.7	169.5	367.0	5.5	20.7	193.0
Pennsylvania.....	44	23	8.6	32.6	7.7	15.0	27.7	100.0	83.8	184.3	(D)	8.7	93.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Production by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of production")

Product code	Product	Unit of measure	Total production including interplant transfers			
			1967		1963	
			Quantity	Value excluding excise tax (million dollars)	Quantity	Value excluding excise tax (million dollars)
2121- --	CIGARS, TOTAL.....	Million.....	7,812	365.5	6,661	353.2
21210 13	Weighing less than 3 pounds per 1,000 cigars, finished weight....	....do.....	368	4.6	186	2.6
21210 21	Weighing 3 to 10 pounds per 1,000 cigars, finished weight.....	....do.....	1,029	30.5	955	31.1
21210 31	Weighing more than 10 pounds per 1,000 cigars, finished weight...	....do.....	5,895	306.0	5,452	315.9
21210 00	Cigars, n.s.k. (For companies with 10 or more employees. See Note.).....	....do.....	<sup>1</sup> 485	22.8	<sup>1</sup> 68	3.7
21210 02	Cigars, n.s.k. (For companies with less than 10 employees. See Note.).....	....do.....	<sup>1</sup> 34	1.6	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity estimated based on quantity-value relationship reported for other products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2121.—CIGARS				
	Materials, containers, and supplies, total.....	(X)	159.8	(X)	163.0
011410	Unstemmed leaf tobacco, including green tobacco not packed.....	(NA)	3.3	6.2	10.6
214111	Unstemmed leaf tobacco, redried and packed.....	8.2	29.1	8.6	20.0
214123	Stemmed leaf tobacco.....	56.1	51.7	71.2	65.6
214124	Processed sheet tobacco and homogenized tobacco, finished weight basis.....	13.5	10.0	(X)	(X)
214129	Other tobacco materials.....	45.4	26.4	51.3	35.2
282121	Cellophane (tubes, sheets, rolls).....	(X)	4.7	(X)	5.8
260012	Paper and paperboard products, including shipping containers, setup and folding cartons.....	(X)	14.3	(X)	17.9
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	9.2	(X)	7.8
976000	Materials, n.s.k.....	(X)	11.1	(X)	(X)

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2121, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Production--**Includes the f.o.b. plant value of the primary products produced in the plant as well as the shipments value of secondary products and miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further production. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products**--In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

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"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment**--For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories**--Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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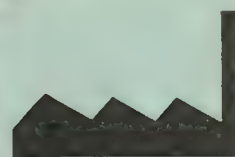
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-21A-3

## INDUSTRY SERIES

### Chewing and smoking tobacco

SIC Code 2131

**preliminary  
report**

The Tobacco (Chewing and Smoking) and Snuff Industry includes establishments engaged in manufacturing smoking and chewing tobacco, and snuff.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products produced and miscellaneous receipts of establishments classified in the Chewing and Smoking Tobacco Industry amounted to \$122.2 million, a decrease of 12 percent compared with 1963. Value added by manufacture at \$63.5 million in 1967 was 14 percent less than value added in 1963. Average employment in the industry showed a decrease

of 12 percent from 1963 to a total of 3.6 thousand employees in 1967.

Of the \$122.2 million total value of production and other receipts of establishments classified as chewing and smoking tobacco, \$4.6 million were products primary to other industries; and \$5.7 million were receipts for miscellaneous activities. The industry production of primary products represented 96 percent of the total manufactured product production, primary and secondary. This percent, called the specialization ratio for the industry, was 97 percent in 1963.

The total value of smoking and chewing tobacco and snuff produced by all manufacturers in 1967 was \$193.0 million of which \$111.9 million, or 58 percent, were produced by plants classified

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2131.--CHEWING AND SMOKING TOBACCO													
1967 Census....	46	22	3.6	18.1	2.7	4.9	11.5	63.5	58.6	122.2	1.5	36.8	96	58
1966 ASM <sup>1</sup> .....	(NA)	(NA)	4.3	21.2	3.3	6.2	13.4	84.3	61.6	146.9	2.4	39.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	4.4	21.0	3.5	6.5	13.6	75.8	67.9	144.5	6.4	39.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	5.1	24.4	3.8	6.8	14.2	93.7	80.1	174.6	5.6	44.0	(NA)	(NA)
1963 Census....	51	25	4.1	18.2	3.1	5.7	11.6	74.0	65.9	139.5	.9	41.5	97	61
1962 ASM <sup>1</sup> .....	(NA)	(NA)	4.6	22.3	3.5	6.6	13.0	76.2	71.5	147.1	.8	34.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	4.7	22.1	3.6	6.7	13.1	76.1	68.4	144.7	1.2	36.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	4.4	18.5	3.4	6.4	12.4	72.1	65.5	137.2	2.1	39.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	4.6	18.2	3.6	6.9	12.5	72.5	61.9	134.3	1.4	38.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	58	28	6.3	23.7	5.3	10.0	17.5	86.2	89.6	175.8	1.1	36.3	98	88

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

in industry 2131, Chewing and Smoking Tobacco, while the remainder was produced by plants classified in other industries. This percent, called the coverage ratio, was 61 percent in 1963.

2, and 4 may be compared with the product statistics in table 3.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See Appendix, "Explanation of Terms.")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2131.--CHEWING AND SMOKING TOBACCO													
United States, total.....	46	22	3.6	18.1	2.7	4.9	11.5	63.5	58.6	122.2	1.5	4.1	74.0
South.....	13	4	1.0	5.6	.8	1.5	3.9	14.6	17.7	32.6	.9	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production including interplant transfers			
			1967		1963	
			Quantity	Value excluding excise tax (million dollars)	Quantity	Value excluding excise tax (million dollars)
2131- --	CHEWING AND SMOKING TOBACCO, TOTAL.....	Million lbs..	158.9	193.0	194.0	217.9
21310 --	Chewing and smoking tobacco and snuff:					
21310 11	Smoking.....	...do.....	70.3	97.3	78.2	98.0
21310 12	Fine-cut chewing and smoking.....	...do.....			5.5	6.8
21310 13	Scrap chewing.....	...do.....			34.1	29.4
21310 15	Twist chewing.....	...do.....	2.5	4.9	2.7	4.4
21310 17	Plug chewing.....	...do.....	24.2	27.8	24.9	26.4
21310 51	Snuff.....	...do.....	27.0	29.3	37.2	44.6
21310 55	Snuff flour, not packed for sale to consumer.....	...do.....	10.8	1.0	11.5	8.2
21310 00	Chewing and smoking tobacco, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....				
21310 02	Chewing and smoking tobacco, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

<sup>1</sup>Quantity estimate based on quantity-value relationship reported for other products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2131.--CHEWING AND SMOKING TOBACCO				
	Materials, containers, and supplies, total.....	(X)	53.8	(X)	62.6
011410	Unstemmed leaf tobacco, including green tobacco not packed.....	6.4	2.2	6.3	2.0
214111	Unstemmed leaf tobacco, redried and packed.....	27.2	11.5	25.5	10.6
214123	Stemmed leaf tobacco.....	27.5	19.0	40.0	22.2
214124	Processed sheet tobacco and homogenized tobacco, finished weight basis.....	1.6	0.6	(NA)	(NA)
214129	Other tobacco materials.....	12.9	4.9	22.6	9.6
282121	Cellophane (tubes, sheets, rolls).....	(X)	0.1	(X)	0.9
260012	Paper and paperboard products, including shipping containers, setup and folding cartons.....	(X)	5.1	(X)	5.9
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	9.7	(X)	11.4

(NA) Not available. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2131, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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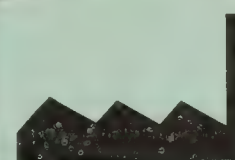
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Tobacco stemming and redrying

SIC Code 2141

The Tobacco Stemming and Redrying Industry includes establishments primarily engaged in the stemming and redrying of tobacco. Establishments which sell leaf tobacco as merchant wholesalers, agents, or brokers, and which also may be engaged in stemming tobacco, are not included in this industry. Leaf tobacco warehouses which may be engaged in stemming tobacco are not included in this industry.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Tobacco Stemming and Redrying In-

dustry amounted to \$1,380.4 million, an increase of 1.0 percent compared with 1963. Value added by manufacture at \$130.5 million in 1967 was 26.3 percent more than value added in 1963. Average employment in the industry showed a decrease of 8.2 percent from 1963 to a total of 15.6 thousand employees in 1967.

Of the \$1,380.4 million total value of shipments and other receipts of establishments classified as engaged in tobacco stemming and redrying, \$309.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 100 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 100 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2141.--TOBACCO STEMMING AND REDRYING														
1967 Census....	118	95	15.6	64.9	13.1	25.5	44.5	130.5	1249.6	1380.4	12.2	858.6	100	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	13.1	54.3	11.0	21.7	36.5	100.5	1286.1	1386.8	16.8	835.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	13.2	53.1	11.0	22.0	36.5	103.0	1275.9	1378.9	9.9	886.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	16.0	61.8	13.5	27.3	44.6	143.1	1277.2	1418.2	8.5	1042.1	(NA)	(NA)
1963 Census.....	136	110	17.0	61.1	14.5	28.3	43.3	103.3	1261.1	1366.6	19.0	1076.7	100	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	13.7	55.2	11.8	27.4	40.7	118.6	1349.3	1468.7	10.1	1128.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	49.6	11.5	24.9	36.2	106.1	1384.1	1488.3	14.9	1131.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	14.0	49.1	12.1	26.2	36.0	120.0	1329.4	1453.6	8.5	1043.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	13.4	45.0	11.4	24.5	33.2	92.8	1124.4	1216.0	17.7	987.6	(NA)	(NA)
1958 Census <sup>2</sup> ...	144	122	14.9	46.7	12.9	26.6	34.5	85.6	1086.6	1176.7	19.8	971.3	100	100

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of stemmed and redried tobacco shipped by all producers in 1967 was \$1,089.4 million of which 98 percent, were shipped by plants classified in industry 2141, Tobacco Stemming and Redrying, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2141.--TOBACCO STEMMING AND REDRYING													
United States, total.....	118	95	15.6	64.9	13.1	25.5	44.5	130.5	1,249.6	1,380.4	12.2	17.0	103.3
South.....	91	78	14.4	59.6	12.1	23.5	40.3	113.5	1,213.6	1,327.6	(D)	(D)	(D)
South Atlantic.....	59	55	11.8	46.2	10.0	18.8	31.9	93.3	891.8	985.3	8.6	13.9	72.9
Virginia.....	17	15	2.6	12.0	2.1	4.1	7.4	21.5	249.8	271.8	(D)	3.5	17.7
North Carolina....	36	34	8.0	31.5	6.9	13.1	22.2	66.8	626.9	693.4	4.6	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total production including interplant transfers			
			1967		1963	
			Quantity	Value excluding excise tax (million dollars)	Quantity	Value excluding excise tax (million dollars)
2141- --	STEMMED AND REDRIED TOBACCO, TOTAL.....	Million lbs...	1,277.8	1,089.4	1,279.5	1,129.8
21411 --	Tobacco redried.....	...do.....	<sup>1</sup> 152.4	<sup>1</sup> 95.6	249.6	165.4
21411 11	Packed for sale as such.....	...do.....	108.2	74.9	170.5	105.4
21411 51	Packed for use in another manufacturing plant of the reporting company.....	...do.....	44.2	20.7	79.1	60.0
21412 --	Tobacco stemmed.....	...do.....	<sup>1</sup> 1,100.2	<sup>1</sup> 972.3	1,030.0	964.3
	Stemmed tobacco packaged for sale as such.....	...do.....	161.4	151.5	103.7	72.3
21412 11	Aged leaf.....	...do.....	75.3	61.4	34.4	18.8
21412 15	Leaf, not aged.....	...do.....	86.1	90.1	69.3	53.4
	Stemmed tobacco for use in another manufacturing plant of the reporting company.....	...do.....	936.1	817.1	924.1	889.9
21412 21	Aged leaf.....	...do.....	489.6	447.6	280.3	273.7
21412 25	Leaf, not aged.....	...do.....	446.5	369.5	643.8	616.2
21412 00	Stemmed tobacco products, not specified by kind.....	...do.....	2.7	3.7	2.2	2.2
21410 00	Stemmed and redried tobacco n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	<sup>1</sup> 225.1	<sup>1</sup> 21.4	-	-
21410 02	Stemmed and redried tobacco n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	<sup>1</sup> 20.1	<sup>1</sup> 0.1	-	-
	Contract work done on tobacco owned by others <sup>3</sup> .....	...do.....	1,483.6	88.1	720.2	42.5
93000 02	Packing leaf, not redried.....	...do.....	287.5	5.2	( <sup>4</sup> )	( <sup>4</sup> )
93000 11	Redrying and packing leaf (packed weight).....	...do.....	701.8	52.1	434.8	24.8
	Stemming leaf (stemmed packed weight):					
93000 12	Aged leaf.....	...do.....	41.2	3.0	189.2	14.5
93000 13	Leaf, not aged.....	...do.....	177.6	18.2		
93000 14	Other work on tobacco owned by others.....	...do.....	255.3	8.4	96.2	3.1
93000 00	Contract work on tobacco owned by others n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	<sup>2</sup> 20.2	1.2	(NA)	(NA)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. n.s.k. Not specified by kind. (NA) Not available.

<sup>1</sup>Code 21411 and 21412 do not include data from codes 2141000 and 2141002.

<sup>2</sup>Quantity estimated based on quantity-value relationship for other products.

<sup>3</sup>For these products, contract receipts are reported instead of the value of the packed tobacco.

<sup>4</sup>In 1963, data for code 9300002 were included with code 9998098, miscellaneous receipts.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2141.--TOBACCO STEMMING AND REDRYING				
	Materials, containers, and supplies, total.....	(X)	1,070.7	(X)	1,090.0
011410	Unstemmed leaf tobacco, including green tobacco not packed.....	933.5	610.6	926.2	578.1
214111	Unstemmed leaf tobacco, redried and packed.....	136.5	85.1	324.5	179.8
214123	Stemmed leaf tobacco.....	336.9	310.5	324.2	311.6
214124	Processed sheet tobacco and homogenized tobacco, finished weight basis.....	122.0	30.0	11.4	5.0
214129	Other tobacco materials.....				
282121	Cellophane (tubes, sheets, rolls).....	(X)	0.7	(X)	0.5
260012	Paper and paperboard products including shipping containers, setup and folding cartons.....	(X)		(X)	
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	15.5	(X)	15.0
976000	All other materials, parts, and supplies, n.s.k. <sup>1</sup> .....	(X)	18.3	(X)	

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2141, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.









# 1967 CENSUS OF MANUFACTURES



MC67(P)-22A-1

## INDUSTRY SERIES

## Weaving mills, cotton

SIC Code 2211

**preliminary  
report**

The Broadwoven Fabric Mills, Cotton, classified as establishments primarily engaged in weaving fabrics over 12 inches in width, wholly or chiefly of cotton. Establishments primarily engaged in weaving cotton carpets and rugs are classified in industry 2271; those tufting carpets and rugs in industry 2272; those making tire cord and fabric in industry 2296; and finishers of cotton broadwoven fabrics in industry 2261.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied as Weaving Mills, Cotton, amounted to \$3,346.1 million, an increase of 8 percent compared with 1963. Value added by manufacture at \$1,632.9 million in 1967 was 30 percent more than value added in 1963. Average employment in the industry showed a decrease of 3 percent from 1963 to a total of 203.5 thousand employees in 1967.

Of the \$3,346.1 million total value of shipments and other receipts of establishments classified as weaving mills, cotton, \$698.8 million were products primary to other industries; and \$43.4 million were receipts for miscellaneous activities. The industry shipments or primary products represented 89 percent of the total manufactured product shipments, primary and

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2211.--WEAVING MILLS, COTTON													
1967 Census....	394	332	203.5	942.5	190.0	399.2	834.4	1,632.9	1,770.0	3,346.1	170.0	651.2	89	81
1966 ASM <sup>1</sup> .....	(NA)	(NA)	208.6	959.9	195.2	424.0	854.0	1,730.3	1,852.4	3,561.9	222.0	590.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	204.9	888.0	191.5	414.6	791.2	1,629.1	1,751.0	3,360.9	167.2	580.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	203.6	822.0	190.7	406.8	728.1	1,404.3	1,756.2	3,171.3	138.2	565.3	(NA)	(NA)
1963 Census....	407	350	209.0	771.6	195.5	403.4	688.4	1,256.8	1,823.8	3,104.1	113.4	625.8	92	80
1962 ASM <sup>1</sup> .....	(NA)	(NA)	223.6	805.2	208.3	425.5	712.9	1,346.3	1,893.5	3,188.4	114.8	718.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	228.2	785.5	212.7	427.0	695.0	1,282.3	1,746.7	3,032.3	80.9	674.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	238.7	816.2	223.2	452.8	725.4	1,382.6	1,747.4	3,078.1	83.0	643.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	243.2	804.2	226.1	467.1	719.4	1,295.9	1,782.3	3,098.2	72.0	577.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	496	395	243.4	724.5	228.6	443.3	646.7	1,078.6	1,622.8	2,748.6	48.4	589.9	94	82

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

This percent, called the coverage ratio, was 80 percent in 1963.

The total value of cotton broadwoven fabrics shipped by all producers in 1967 was \$3,624.1 million of which \$2,925.3 million, or 81 percent, were shipped by plants classified in industry 2211, Weaving Mills, Cotton, while the remainder was shipped by plants classified in other industries.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2211, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MQ-22T, Cotton Broadwoven Goods; MA-22S, Broadwoven Goods Finished; and MA-23X, Sheets, Pillowcases, and Towels.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
United States, Total.....	INDUSTRY 2211.--WEAVING MILLS, COTTON												
	394	332	203.5	942.5	190.0	399.2	834.4	1,632.9	1,770.0	3,346.1	170.0	209.0	1,256.8
	22	14	7.5	35.8	6.7	13.7	30.9	57.8	59.0	112.7	3.4	8.8	46.2
	8	2	0.1	0.5	0.1	0.2	0.4	1.5	0.9	2.3	(Z)	2.5	11.2
	57	25	2.7	14.6	2.4	5.0	11.3	27.8	30.2	57.9	1.0	1.8	15.3
	18	8	0.7	4.3	0.6	1.2	3.1	8.5	8.1	16.1	0.3	(D)	(D)
	25	8	0.9	4.4	0.8	1.6	3.5	7.5	10.8	18.2	0.2	(D)	(D)
	14	9	1.1	5.9	1.0	2.1	4.7	11.9	11.3	23.6	0.5	0.9	8.2
	254	240	165.6	768.3	154.8	325.5	682.5	1,314.2	1,430.6	2,705.4	140.9	171.7	1,034.4
	68	64	45.9	212.8	42.9	89.1	188.9	345.4	427.4	756.2	43.7	49.4	300.1
	111	106	63.2	301.4	59.1	127.1	268.6	532.0	540.2	1,064.2	46.3	67.4	426.7
	34	33	22.2	100.5	20.8	44.2	89.1	189.8	193.0	373.0	19.8	20.8	126.7
	29	28	19.0	85.5	17.8	37.8	76.2	160.7	168.5	321.1	17.8	17.5	108.5
	19	17	5.4	22.6	5.1	10.6	20.1	42.0	55.8	93.8	4.8	5.7	31.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967		Total production (quantity)	1963				Produced and consumed in the same establishment (quantity)
		Total shipments, including interplant transfers			Total shipments, including interplant transfers		Transfers to other establishments in the same company		
		Quantity	Value (million dollars)		Quantity	Value (million dollars)	Quantity	Value (million dollars)	
2211- -- 2261 pt. 2392 pt. 2399 pt.	COTTON BROADWOVEN FABRICS: GRAY GOODS, FINISHED GOODS AND SELECTED FABRICATED PRODUCTS, TOTAL <sup>1</sup> .....	(lin.yds.) (X)	3,624.1	(lin.yds.) (X)	(lin.yds.) (X)	3,454.8	(lin.yds.) (X)	(X)	(lin.yds.) (X)
	Gray goods:								
22111 00	Cotton duck and allied fabrics, including combed duck.....	286.3	202.6	205.4	199.0	124.1	17.5	12.4	(D)
22112 00	Cotton sheeting and allied coarse and medium yarn fabrics.....	1,978.3	656.3	2,435.0	2,142.8	619.4	492.9	156.4	296.3
22113 00	Cotton print cloth yarn fabrics.....	3,106.4	376.7	3,004.5	2,997.7	419.0	903.2	119.6	(D)
22114 --	Cotton colored yarn fabrics, toweling and dishcloth fabrics, and napped cotton fabrics, including blanketing, total.....	527.1	172.8	1,186.9	536.4	207.2	169.7	39.8	658.5
22114 10	Carded colored yarn fabrics.....	213.8	86.5	431.7	301.0	142.5	(D)	(D)	135.2
22114 30	Toweling, washcloth, and dishcloth fabrics..	231.6	54.5	619.4	176.8	43.2	148.7	30.0	442.7
22114 50	Blanketing and other napped fabrics.....	81.7	31.8	135.8	58.6	21.5	(D)	(D)	80.6
22115 00	Fine cotton fabrics.....	700.4	333.2	1,520.9	1,208.5	474.3	412.2	185.6	301.6
22116 00	Other woven cotton gray fabrics and special- ties.....	398.1	242.0	475.5	326.1	181.0	88.5	51.5	147.2
				(fin. lin. yds.)	(fin. lin. yds.)				(fin. lin. yds.)
22117 -- 22617 --	Finished cotton broadwoven fabrics (excluding commission finishing), total.....	<sup>2</sup> 1,749.5	685.4	3,340.1	<sup>2</sup> 2,074.3	724.1	(D)	(D)	1,267.2
22117 --	Finished in weaving mills.....	<sup>2</sup> 845.0	375.7	1,677.6	<sup>2</sup> 954.9	411.7	(D)	(D)	716.8
22617 --	Finished in other industries, total.....	<sup>2</sup> 904.5	309.7	1,662.5	<sup>2</sup> 1,119.4	312.4	(D)	(D)	550.4
22117 11 22617 11	Bleached and white finished.....	752.4	204.8	1,959.2	931.6	212.9	(D)	(D)	991.1
22117 31 22617 31	Plain dyed and finished.....	796.3	382.5	1,087.1	883.3	401.8	(D)	(D)	236.9
22117 51 22617 51	Printed and finished.....	200.8	85.2	293.8	259.4	86.1	(D)	(D)	39.3
22117 61 22617 61	Other finished cotton fabrics (flameproofed, mildew-proofed, mercerized, embossed, etc.) not bleached, dyed, or printed in the pro- ducing establishment.....	(NA)	12.2	(NA)	(NA)	22.4	(NA)	(D)	(NA)
22117 00 22617 00	Finished cotton broadwoven fabrics, n.s.k.....	(X)	0.7	(X)	(X)	0.9	(X)	(X)	(X)

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Total production (quantity)	Total shipments, including interplant transfers		Total production (quantity)	Total shipments, including interplant transfers	
				Quantity	Value		Quantity	Value
			(quantity)		(million dollars)	(quantity)		(million dollars)
	Sheets and pillowcases made from woven fabrics:							
2211800	Total as reported in the census of manufactures...		(X)	(X)	438.5	(X)	(X)	328.8
2392800	Made in weaving mills.....		(X)	(X)	268.4	(X)	(X)	328.8
	Made from purchased fabrics.....		(X)	(X)	170.1	(X)	(X)	329.1
	Total as reported on Census Annual Form MA-23X....		(X)	(X)	444.6	(X)	(X)	329.1
	Sheets:							
2211803	Crib size, total.....	Million doz.	0.8	0.8	6.5	0.7	0.7	5.0
2392803	Carded.....	..do.....	0.8	0.8	6.5	0.7	0.7	5.0
2211813	Combed.....	..do.....						
2392813								
	Other sheets, total.....	..do.....	15.8	14.8	359.6	12.2	12.3	268.2
	Flat.....	..do.....	10.1	9.6	229.9	7.9	8.1	175.1
2211805	Carded.....	..do.....	5.4	5.1	106.3	7.9	8.1	175.1
2211815	Combed.....	..do.....	4.7	4.5	123.6			
2392815								
	Fitted.....	..do.....	5.7	5.2	129.8	4.3	4.2	93.1
2211807	Carded.....	..do.....	2.4	2.2	46.7	4.3	4.2	93.1
2392807	Combed.....	..do.....	3.3	3.0	83.1			
2211817								
2392817								
	Pillowcases.....	..do.....	13.5	13.0	78.5	10.4	10.8	55.9
2211833	Carded.....	..do.....	7.2	7.0	34.7	10.4	10.8	55.9
2392833	Combed.....	..do.....	6.3	6.0	43.8			
2211835								
2392835								
	Towels and washcloths made from woven fabrics:							
2211900	Total as reported in the census of manufactures...		(X)	(X)	300.2	(X)	(X)	226.4
2392900	Made in weaving mills.....		(X)	(X)	270.1	(X)	(X)	226.4
	Made from purchased fabric.....		(X)	(X)	30.1	(X)	(X)	225.3
	Total as reported on Census Annual Form MA-23X....		(X)	(X)	303.6	(X)	(X)	225.3
2211911	Terry woven towels.....	Million doz.	48.3	48.6	226.7	38.0	37.4	157.5
2392911	Huck and crash towels, total.....		(X)	(X)	31.4	(X)	(X)	33.7
	Made for retail sales.....	Million doz.	5.5	5.5	10.4	5.9	6.0	10.6
2211923	Dish towels.....	..do.....	4.9	4.9	9.3	5.9	6.0	10.6
2392923	Other towels.....	..do.....	0.6	0.6	1.1			
2211925								
2392925								
	Made for industrial and institutional use....	Million lin. yds.....	146.9	139.4	21.1	155.0	157.1	23.1
2211927	Dish towels.....	..do.....	66.5	61.4	9.1	155.0	157.1	23.1
2392927	Other towels.....	..do.....	80.4	78.0	12.0			
2211929								
2392929	Washcloths.....	Million doz.	34.1	33.7	45.5	28.3	28.1	34.1
2211953								
2392953								
22110 --	Other fabricated cotton textile products (including							
23926 pt.	fabrics, n.s.k.) <sup>1</sup> .....		(X)	(X)	216.4	(X)	(X)	150.5
23990 pt.								
22110 33	Diapers (excluding disposable).....	Million doz.	(X)	22.0	38.9	(NA)	(NA)	30.1
23990 23								
23990 24								
	Cotton Jacquard woven bedspreads and bed sets: <sup>4</sup>							
22110 41	Made in cotton weaving mills.....	Million pairs or sets.....	(X)	4.9	28.1	5.4	5.3	28.5
23926 51	Made in other industries.....	..do.....	(X)	5.6	21.6	2.4	2.3	14.7
	Other than Jacquard woven or tufted cotton bedspreads and bed sets: <sup>4</sup>							
22110 45	Made in cotton weaving mills.....	..do.....	(X)	8.7	41.4	3.1	3.0	10.5
23926 71	Made in other industries.....	..do.....				4.0	4.0	21.3

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Total production (quantity)	Total shipments, including interplant transfers		Total production (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
22110 -- 23926 pt. 23990 pt.	Other fabricated cotton textile products (including fabrics, n.s.k.) <sup>1</sup> --Continued							
	Bed and camp blankets, motor robes, etc.:							
22110 51	Crib size.....	Million doz.	(X)	0.9	5.5	1.1	1.1	6.1
22110 55	Regular size.....	..do.....	(X)	0.7	15.2	0.6	0.6	11.5
22110 98	Other fabricated textile products, n.e.c.....	.....	(X)	(X)	10.8	(X)	(X)	16.4
22110 00	Cotton broadwoven fabrics, finished cotton fabrics, etc., n.s.k. (For companies with more than 10 employees. See Note.).....	.....	(X)	(X)	50.8	(X)	(X)	11.4
22110 02	Cotton broadwoven fabrics, finished cotton fabrics, etc., n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	(X)	4.1			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

Production data for gray goods with a detailed breakdown by type of fabric, are collected on a quarterly basis and published in Current Industrial Reports Series M22T.1, Cotton Broadwoven Goods, and M22T.2, Manmade Fiber Broadwoven Goods. In special supplements for the first quarter of 1968 detailed data including historical information, were also published for average weight and width of fabric production.

Production data for finished fabrics are published in Current Industrial Reports Series MA-225, Broadwoven goods finished. This report also furnishes detailed information by type of fabric finished within major end use categories. Data for cotton fabrics finished on commission are shown in the census of manufactures reports on industry 2261.

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Data for selected fabricated products that are made in significant amounts from cotton fabrics at cotton weaving mills are shown in this table. Data for other fabricated products such as bags, tents, housefurnishings etc. which are also made at weaving mills but not by a large number of plants are published in other census of manufactures reports.

<sup>2</sup>Excludes quantity data for other finished fabrics and finished fabrics, not specified by kind.

<sup>3</sup>Excludes other finished fabrics, fabrics not specified by kind, and commission finishing.

<sup>4</sup>In the report for Industry 2392, Housefurnishing, n.e.c., data are shown for manmade fiber bedspreads and bed sets. In addition, bedspreads and bed sets were reported without fiber identification. Such products are also shown in the report for industry 2392 and are excluded from this table.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2211.--WEAVING MILLS, COTTON					
	Materials, containers, supplies, etc., total.....		(X)	1,610.7	(X)	1,686.5
011201	Raw cotton.....	1,000 bales.....	6,231.4	788.5	6,149.4	1,080.5
282305	Rayon and acetate staple and tow.....	Million lbs.....	66.1	18.8	131.0	38.8
282421	All other manmade fiber staple and tow, except glass.....	..do.....	147.4	88.4	34.1	29.5
282301	Rayon and acetate filament yarn.....	..do.....	11.4	8.3	16.9	11.9
282402	All other manmade filament yarn, except glass.....	..do.....	23.2	27.6	20.0	27.2
010014	All other fibers (silk, jute, reused wool, waste, etc.).....	..do.....	49.1	8.4	61.8	13.2
228101	Purchased spun yarn, all fibers including transfers from other plants of your company.....	..do.....	179.3	106.5	171.3	114.5
220211	Purchased broadwoven fabrics (piece goods) including transfers from other plants of your company.....	Million lin. yds.	623.6	215.2	423.1	139.8
281531	Dyes, lakes, and toners.....	.....	(X)	42.2	(X)	37.8
970099	All other materials, containers and supplies consumed.....	.....	(X)	233.2	(X)	174.1
972000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	.....	(X)	73.6	(X)	19.1

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2211, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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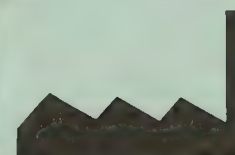
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Weaving mills, synthetics

SIC Code 2221

Broadwoven Fabric Mills, Manmade Fiber and Silk, include establishments primarily engaged in weaving fabrics over 12 inches in width, wholly or chiefly of silk and manmade fibers including glass. Establishments primarily engaged in weaving carpets and rugs from these fibers are classified in industry 2271; those tufting carpets and rugs from these fibers in industry 2272; and those making tire cord and fabric in industry 2296.

In the product coding system for 1967, 1963, and 1958 Censuses of Manufactures, finished synthetic and silk fabrics and blankets were classified as primary to industry 2221 when made in weaving mills. Similar products made in nonweaving establishments were classified as

primary to the appropriate industry; for example, synthetic fabrics finished in establishments engaged only in dyeing or printing were classified as primary to industry 2262, Finishing Plants, Synthetic. This distinction is important in relation to the specialization and coverage ratios of the industry which are described below.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as weaving mills, synthetics, industry amounted to \$2,280.2 million, an increase of

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2221.--WEAVING MILLS, SYNTHETICS														
1967 Census....	<sup>3</sup> 395	311	108.2	526.8	97.9	208.4	443.7	918.4	1,360.3	2,280.2	110.9	383.6	86	77
1966 ASM <sup>1</sup> .....	(NA)	(NA)	102.5	498.2	92.3	201.9	417.4	885.7	1,365.3	2,240.9	128.1	353.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	94.3	441.4	84.7	188.7	370.9	840.9	1,277.1	2,110.9	79.7	337.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	94.4	417.3	85.0	187.5	347.8	786.9	1,221.4	2,001.0	50.8	340.4	(NA)	(NA)
1963 Census....	355	300	88.2	366.0	79.7	171.4	306.5	661.5	1,072.3	1,722.4	35.8	303.2	86	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	82.9	337.2	74.4	160.1	281.1	578.2	973.7	1,531.4	32.9	272.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	79.2	299.6	71.0	147.8	249.3	501.1	834.8	1,328.1	29.1	252.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	79.9	301.5	72.1	151.4	252.9	534.8	826.2	1,344.7	39.0	244.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	82.6	304.8	75.4	159.9	258.9	520.0	856.7	1,370.6	27.7	241.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	401	310	81.7	276.7	74.5	150.6	234.0	468.6	741.9	1,225.5	15.0	230.4	85	88

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

32 percent compared with 1963. Value added by manufacture at \$918.4 million in 1967 was 39 percent more than value added in 1963. Average employment in the industry showed an increase of 23 percent from 1963 to a total of 108.2 thousand employees in 1967.

Of the \$2,280.2 million total value of shipments and other receipts of establishments classified as weaving mills, synthetics, \$314.1 million were products primary to other industries; and \$32.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 86 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

The total value of manmade fiber and silk broadwoven fabrics shipped by all producers in 1967 was \$2,502.0 million of which \$1,934.0 million, or 77 percent, were shipped by plants classified in industry 2221, Weaving Mills, Synthetics, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2221, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MQ-22T.2, Manmade Fiber Broadwoven Gray Goods and  
MA-22S, Broadwoven Fabrics Finished.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2221.--WEAVING MILLS, SYNTHETICS												
United States, total.....	395	311	108.2	526.8	97.9	208.4	443.7	918.4	1,360.3	2,280.2	110.9	88.2	661.5
Maine.....	7	5	0.5	2.1	0.4	0.8	1.7	3.4	4.1	7.6	(D)	0.5	3.1
New Hampshire.....	9	8	1.1	5.1	1.0	2.2	4.3	13.6	12.4	26.1	(D)	1.3	10.6
Massachusetts.....	20	13	3.1	15.3	2.8	6.1	13.7	24.0	44.8	69.6	0.8	3.7	22.9
Connecticut.....	6	6	1.4	7.5	1.2	2.6	6.0	12.0	10.8	22.5	0.2	1.5	10.9
Middle Atlantic.....	133	80	10.2	51.0	9.3	19.1	42.5	83.7	125.3	210.7	3.1	10.8	82.5
New York.....	35	16	2.0	10.0	1.7	3.5	7.9	18.3	18.3	37.4	0.6	1.1	9.6
New Jersey.....	38	17	1.3	7.7	1.1	2.3	6.1	11.6	21.1	33.1	0.2	1.4	14.0
Pennsylvania.....	60	47	6.9	33.3	6.4	13.3	28.6	53.8	85.9	140.2	2.3	8.4	58.8
East North Central....	4	2	0.1	0.4	0.1	0.1	0.3	0.4	1.0	1.4	(D)	(D)	(D)
South.....	188	179	89.7	435.1	81.3	173.8	366.9	761.6	1,121.9	1,881.8	104.9	67.9	511.9
South Atlantic.....	176	167	84.4	410.4	76.3	163.4	344.7	720.6	1,076.5	1,794.9	(D)	(D)	(D)
North Carolina....	77	72	42.3	205.0	38.0	81.4	170.3	351.6	552.2	905.9	22.8	32.1	239.3
South Carolina....	55	54	28.8	140.4	26.3	56.6	120.3	242.3	345.5	585.6	50.9	23.1	170.7
Georgia.....	21	20	7.9	39.6	7.2	15.4	33.1	77.1	86.5	162.1	20.1	5.3	37.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967		Total production (quantity)	1963		Produced and consumed in the same establishment (quantity)
			Total shipments, including interplant transfers <sup>1</sup>			Total shipments, including interplant transfers	Value (million dollars)	
			Quantity	Value (million dollars)				
2221- -- 22628 --	MANMADE FIBER AND SILK BROADWOVEN FABRICS: GRAY GOODS, FINISHED GOODS, AND BLANKETS, TOTAL.....		(X)	2,502.0	(X)	(X)	1,760.2	(X)
		Gray goods:						
22211 00	100 percent filament rayon and/or acetate fabrics, including combinations chiefly rayon and/or acetate.....	Million lin.yds.	651.2	287.1	3,108.8	2,804.5	1,319.4	229.5
22212 00	100 percent filament fabrics, except rayon and/or acetate.....	do.....	729.4	285.8				
22213 00	100 percent spun rayon and/or acetate fabrics, including blends.....	do.....	597.6	225.9				
22214 00	100 percent spun polyester blends with cotton fabrics.....	do.....	965.4	483.9				
22215 00	All other 100 percent spun noncellulosic fabrics.....	do.....	213.7	154.7				
22216 00	Combinations of filament and spun yarn fabrics, chiefly manmade fiber.....	do.....	336.1	193.7				
22217 00	Blanketing, silk, paper, and other specialty manmade fiber fabrics.....	do.....	157.8	201.3				
22218 -- 22628 --	Finished manmade fiber and silk broadwoven goods excluding commission finishing, total.....	Million fin. lin. yds.....	<sup>2</sup> 695.2	559.7	<sup>3</sup> 344.1	<sup>2</sup> 303.6	336.9	47.2
22218 --	Finished in synthetic weaving mills, total.....	do.....	<sup>2</sup> 404.2	414.7	<sup>3</sup> 238.1	<sup>2</sup> 207.7	270.4	(D)
22628 -- 22218 00 22628 20	Finished in other industries, total.....	do.....	<sup>2</sup> 291.0	145.0	<sup>3</sup> 106.0	<sup>2</sup> 95.9	66.5	(D)
22218 30 22628 30	Bleached and white finished.....	do.....	239.0	123.2	112.3	105.2	61.7	(D)
22218 50 22628 50	Plain dyed and finished.....	do.....	435.6	392.6	206.5	175.4	228.7	22.3
22218 61 22628 61	Printed and finished.....	do.....	20.6	20.2	25.2	23.1	27.3	(D)
22218 61 22628 61	Other finished manmade fiber and silk fabrics (flame-proofed, mildewproofed, mercerized, embossed, etc.) not bleached, dyed, or printed in reporting establishment..		(NA)	22.2	(NA)	(NA)	18.9	(D)
22628 00	Finished manmade fiber and silk fabrics (excluding commission finishing), n.s.k.....		(X)	1.5	(X)	(X)	0.4	-
22219 --	Fabricated manmade fiber and silk textile products:							
	Bed and camp blankets, motor robes, etc.....	1,000 dozen....	2,538.3	90.1	2.6	3.0	93.1	(X)
	Rayon and/or acetate, wholly or chiefly:							
22219 11 22219 15	Crib size.....	do.....	1,931.8	61.6	1.8	1.8	52.7	(X)
	Regular size.....	do.....						
	Manmade fibers other than rayon or acetate, wholly or chiefly:							
22219 21 22219 25	Crib size.....	do.....	606.5	28.5	0.9	0.9	40.4	(X)
	Regular size.....	do.....						
22210 00	Manmade fiber and silk broadwoven fabrics, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	17.9	(X)	(X)	10.8	(X)
22210 02	Manmade fiber and silk broadwoven fabrics, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	1.9				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Production data for gray goods with a detailed breakdown by type of fabric are collected on a quarterly basis and published in Current Industrial Reports Series M22T.2, Manmade Fiber Broadwoven Goods. In special supplements for the first quarter 1968 detailed data including historical information were also published for average weight, and width of fabric production.

<sup>2</sup>Excludes quantity data for other finished fabrics and finished fabrics not specified by kind.

<sup>3</sup>Excludes other finished fabrics, fabrics not specified by kind, and commission finishing.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
INDUSTRY 2221.--WEAVING MILLS, SYNTHETICS						
	Materials, containers, supplies, etc., total.....		(X)	1,249.1	(X)	987.1
011201	Raw cotton.....	Thousand Bales....	560.0	80.1	193.9	36.7
229701	Raw wool, mohair, and other animal fibers (scoured weight).....	Million pounds....	8.5	6.9	10.8	8.4
229704	Wool tops.....	..do.....	15.3	14.4	(NA)	10.8
282305	Rayon and acetate staple and tow.....	..do.....	243.9	83.4	230.8	69.6
282421	All other manmade fiber staple and tow, except glass.....	..do.....	250.8	152.8	113.9	109.5
282301	Rayon and acetate filament yarn.....	..do.....	251.6	192.0	238.8	189.7
282402	All other manmade filament yarn, except glass.....	..do.....	95.4	129.4	104.1	147.0
322935	Glass filament yarn and roving.....	..do.....	125.4	63.1	70.5	41.7
010014	All other fibers (silk, jute, reused wool, waste, etc.).....	..do.....	10.7	15.5	30.6	8.4
228101	Purchased spun yarn, all fibers, including transfers from other plants of your company.....	..do.....	265.8	186.9	228.4	205.1
220211	Purchased broadwoven fabrics (piece goods) including transfers from other plants of your company.....	Million lin. yds..	67.0	33.9	37.4	24.6
281531	Dyes, lakes, and toners.....		(X)	29.0	(X)	16.1
970099	All other materials, containers, and supplies consumed.....		(X)	119.1	(X)	98.0
972000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	142.6	(X)	21.5

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2221.--WEAVING MILLS, SYNTHETICS													
1967 Census....	395	311	108.2	526.8	97.9	208.4	443.7	918.4	1,360.3	2,280.2	110.9	383.6	86	77
1966 ASM <sup>1</sup> .....	(NA)	(NA)	102.5	498.2	92.3	201.9	417.4	885.7	1,365.3	2,240.9	128.1	353.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	94.3	441.4	84.7	188.7	370.9	840.9	1,277.1	2,110.9	79.7	337.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	94.4	417.3	85.0	187.5	347.8	786.9	1,221.4	2,001.0	50.8	340.4	(NA)	(NA)
1963 Census....	355	300	88.2	366.0	79.7	171.4	306.5	661.5	1,072.3	1,722.4	35.8	303.2	86	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	82.9	337.2	74.4	160.1	281.1	578.2	973.7	1,531.4	32.9	272.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	79.2	299.6	71.0	147.8	249.3	501.1	834.8	1,328.1	29.1	252.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	79.9	301.5	72.1	151.4	252.9	534.8	826.2	1,344.7	39.0	244.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	82.6	304.8	75.4	159.9	258.9	520.0	856.7	1,370.6	27.7	241.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	401	310	81.7	276.7	74.5	150.6	234.0	468.6	741.9	1,225.5	15.0	230.4	85	88

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2221, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

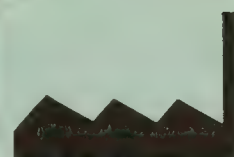
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Weaving and finishing mills, wool

SIC Code 2231

Broad Woven Fabric Mills, Wool: Including Dyeing and Finishing includes establishments primarily engaged in weaving fabrics over 12 inches in width, wholly or chiefly by weight of wool, mohair, or similar animal fibers; those dyeing and finishing woven wool fabrics or dyeing wool, tops, or yarn; and those shrinking and sponging wool goods for the trade. Establishments primarily engaged in weaving wool carpets and rugs are classified in industry 2271, and those tufting wool carpets and rugs in industry 2272.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as weaving and finishing mills, wool, amounted to \$1,091.6 million, an increase of 8 percent compared with 1963. Value added by manufacture at \$429.5 million in 1967 was 11 percent more than value added in 1963. Average employment in the industry showed a decrease of 12 percent from 1963 to a total of 41.8 thousand employees in 1967.

Of the \$1,091.6 million total value of shipments and other receipts of establishments classified as weaving and finishing mills, wool, \$221.1 million were products primary to other industries;

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2231.—WEAVING AND FINISHING MILLS, WOOL														
1967 Census....	310	217	41.8	216.8	36.6	76.1	170.7	429.5	657.7	1,091.6	28.0	177.2	79	97
1966 ASM <sup>1</sup> .....	(NA)	(NA)	44.3	221.1	38.6	81.2	170.7	446.2	731.9	1,166.8	32.0	185.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	43.5	208.2	38.0	80.2	161.8	387.5	687.3	1,073.5	17.0	177.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	44.4	198.9	38.4	81.0	156.2	371.9	649.6	1,026.5	19.0	179.1	(NA)	(NA)
1963 Census.....	361	249	47.4	202.9	41.6	85.0	160.2	386.6	629.5	1,010.7	15.5	187.5	86	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	50.0	214.1	44.2	90.8	169.4	396.4	643.6	1,036.4	*18.2	178.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	51.1	207.5	44.8	90.0	164.1	363.6	587.8	950.9	15.9	172.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	56.2	217.4	49.7	98.2	174.3	372.1	607.1	987.1	14.8	170.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	58.4	228.9	51.9	108.3	187.2	420.9	632.8	1,051.5	12.3	187.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	469	311	56.0	206.1	49.1	98.7	166.2	336.6	576.6	929.0	9.7	170.1	94	96

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

and \$24.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 79 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

The total value of woven wool fabrics shipped by all producers in 1967 was \$872.8 million of which \$845.8 million, or 97 percent, were shipped by plants classified in industry 2231, Weaving

and Finishing Mills, Wool, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2231, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MQ-22T.3, Wool Broadwoven Goods.

They differ from the data shown in this report for 1967 because the census figures show shipment data whereas the MQ-22T report is based on production.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2231.--WEAVING AND FINISHING MILLS, WOOL												
United States, total.....	310	217	41.8	216.8	36.6	76.1	170.7	429.5	657.7	1,091.6	28.0	47.4	386.6
New England.....	125	98	15.9	79.4	14.2	29.1	64.2	142.2	172.7	316.8	3.8	20.8	149.0
Maine.....	18	16	4.1	19.3	3.7	7.9	16.0	32.1	42.6	75.5	0.7	5.2	39.0
New Hampshire.....	16	16	3.6	17.7	3.3	6.8	15.1	28.4	39.5	68.3	0.6	3.6	25.6
Vermont.....	7	5	0.4	1.6	0.3	0.6	1.3	2.0	3.0	5.3	0.1	0.6	2.7
Massachusetts.....	40	21	4.7	25.3	4.1	8.2	19.1	53.3	64.5	119.2	1.0	7.8	56.3
Rhode Island.....	35	25	2.0	9.9	1.8	3.7	8.2	15.7	10.8	26.1	0.6	2.4	15.9
Connecticut.....	8	8	1.1	5.7	1.0	2.0	4.5	10.6	12.3	22.5	0.8	1.2	9.5
Middle Atlantic.....	91	50	6.3	38.9	5.1	10.4	26.5	66.3	51.6	118.2	3.0	6.9	57.2
North Central.....	21	14	1.3	6.9	1.1	2.2	4.7	11.5	6.0	17.5	0.3	1.7	11.2
Missouri.....	3	3	0.2	0.7	0.1	0.2	0.5	1.1	0.3	1.4	(Z)	0.1	0.3
South.....	52	45	17.2	86.4	15.2	32.4	71.0	201.5	417.3	619.8	20.7	17.1	161.4
South Atlantic.....	43	38	15.0	75.7	13.3	28.3	62.8	178.4	400.3	580.0	19.5	14.9	19.2
West.....	20	10	1.1	5.3	1.0	1.9	4.3	8.1	10.2	19.2	0.3	1.0	7.9
California.....	9	3	0.2	1.1	0.2	0.3	0.8	1.7	1.6	3.3	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967 total shipments, including interplant transfers		Total production (quantity)	1963 Total shipments, including interplant transfers		Produced and consumed in the same establish- ment (quantity)
			Quantity	Value (million dollars)		Quantity	Value (million dollars)	
2231- --	WOVEN WOOL FABRICS, TOTAL.....		(X)	872.8	(X)	(X)	880.0	(X)
22311 11	Finished wool yarns, tops, raw stock, etc., not combed or spun at the reporting plant.....	Million lbs.....	41.2	64.3	(X)	32.8	63.7	(X)
22312 --	Wool fabrics (gray goods), total.....		72.3	136.8	(X)	(X)	129.9	(X)
22312 10	Woolen and worsted apparel fabrics.....	Million lin. yds..	72.3	136.8	292.3	67.7	127.5	204.8
22312 30	Woolen and worsted nonapparel fabrics, except felts.....	...do.....			10.2	(D)	(D)	8.4
22312 50	Woven wool felts.....	Million lbs.....			8.9	(D)	(D)	8.7
22313 --	Finished wool apparel fabrics, total.....	Million fin. lin. yds.....	237.7	514.9	223.3	247.8	547.5	(X)
22313 11	For Government orders.....	...do.....	237.7	514.9	3.0	3.2	10.6	(X)
22313 21	For other than Government orders: For use in men's and boys' clothing.....	...do.....			78.0	78.2	197.4	(X)
22313 31	For use in women's and children's clothing.....	...do.....			142.4	166.3	339.5	(X)
22314 --	Finished wool nonapparel fabrics and felts, total...		(X)	66.0	(X)	(X)	66.1	(X)
22314 11	Blanketing.....	Million fin. lin. yds.....	1.8	5.0	6.3	2.4	6.4	3.8
22314 31	All other, except felts.....	...do.....	2.7	5.8	0.7	0.8	3.8	(X)
22314 51	Woven wool felts.....	Million lbs.....	7.5	55.2	8.6	8.7	56.0	(X)
22315 --	Receipts for commission finishing or sponging of wool fabrics, total.....		(X)	44.3	(X)	(X)	45.3	(X)
22315 91	Contract receipts for shrinking, sponging, mending, etc., of wool cloth owned by others.....		(X)	13.2	(X)	(X)	12.2	(X)
22315 92	Contract receipts for job or commission finishing of wool broadwoven fabrics.....	Million fin. lin. yds.....	33.2	18.5	55.1	46.8	18.3	(X)
22315 93	Contract receipts for finishing wool textiles, except broadwoven fabrics.....		(X)	11.6	(X)	(X)	12.1	(X)
22315 00	Receipts for commission finishing of wool textiles, n.s.k.....		(X)	1.0	(X)	(X)	2.7	(X)
22319 --	Wool and chiefly wool blankets, total.....	Million dozen....	0.2	17.4	0.2	0.2	16.9	(X)
22319 21	Crib size.....	...do.....	0.2	17.4	0.2	0.2	16.9	(X)
22319 25	Regular size.....	...do.....						
22310 00	Wool broadwoven fabrics, finished wool fabrics, etc., n.s.k. (For companies with 10 or .. more employees. See Note.).....		(X)	26.6	(X)	(X)	10.6	(X)
22310 02	Wool broadwoven fabrics, finished wool fabrics, etc., n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	2.5				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

The Census Bureau publishes detailed quarterly production data for woolen and worsted fabrics in Current Industrial Reports Series M22T.3, Wool Broadwoven Goods. In a special supplement for the first quarter of 1963, detailed data including prior year information, were also published for average weight and width of fabric production. This report was issued on November 21, 1968 in Current Industrial Reports Series MQ-22T.3(68)-1, Supplement, entitled, Wool Broadwoven Goods, Average Weight and Width of Fabrics, 1947-First Quarter 1968.

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2231.--WEAVING AND FINISHING MILLS, WOOL					
	Materials, containers, supplies, etc., total.....		(X)	609.6	(X)	580.4
229701	Raw wool, mohair, and other animal fibers (scoured weight).....	1,000 pounds.....	152.7	143.9	183.4	187.6
229704	Wool tops.....	..do.....	51.5	89.2	56.3	98.5
282305	Rayon and acetate staple and tow.....	..do.....	21.0	12.5	1.7	0.7
282421	All other manmade fiber staple and tow, except glass.....	..do.....	25.5	10.1	11.8	11.4
010014	All other fibers (silk, jute, reused wool, waste, etc.).....	..do.....	49.7	66.6	44.4	83.2
228101	Purchased spun yarn, all fibers, including transfers from other plants of your company.....	..do.....	61.3	121.1	58.8	109.4
220211	Purchased broadwoven fabrics (piece goods) including transfers from other plants of your company.....	1,000 lin. yds...	(X)	24.5	(X)	21.1
281531	Dyes, lakes, and toners.....	.....	(X)	39.4	(X)	34.7
970099	All other materials, containers, and supplies consumed.....	.....	(X)	102.1	(X)	11.8
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	.....				

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2231, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

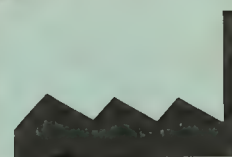
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Narrow fabric mills

SIC Code 2241

Narrow Fabric Mills include establishments primarily engaged in weaving or braiding fabrics 12 inches or narrower in width of cotton, wool, silk, and man-made fibers, including glass fibers. Establishments primarily engaged in covering rubber thread are also included in this industry.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as the narrow fabric mills amounted to \$433.1 million, an increase of 24 percent compared with 1963. Value added by manufacture

at \$208.7 million in 1967 was 21 percent more than value added in 1963. Average employment in the industry showed an increase of 9 percent from 1963 to a total of 25.2 thousand employees in 1967.

Of the \$433.1 million total value of shipments and other receipts of establishments classified as narrow fabric mills, \$20.1 million were products primary to other industries; and \$25.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 91 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (per-cent)	Coverage ratio (per-cent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2241.--NARROW FABRIC MILLS													
1967 Census....	383	219	25.2	116.7	22.6	45.2	93.1	208.7	227.2	433.1	15.3	66.8	95	96
1967 ASM <sup>1</sup> .....	(NA)	(NA)	25.0	114.9	22.1	45.3	90.5	201.5	229.9	427.8	16.3	67.8	(NA)	(NA)
1966 ASM <sup>1</sup> .....	(NA)	(NA)	23.4	102.5	20.8	41.9	79.8	185.9	198.7	378.9	12.1	59.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	23.0	97.4	20.4	42.3	77.3	177.1	195.8	376.4	10.5	51.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	384	215	23.2	91.9	20.6	40.6	73.0	172.5	176.8	349.1	6.9	55.8	91	97
1963 Census....	(NA)	(NA)	26.0	103.3	22.6	47.4	78.5	195.6	185.6	380.7	8.5	64.0	(NA)	(NA)
1962 ASM <sup>1</sup> .....	(NA)	(NA)	25.0	95.1	21.8	44.2	71.4	176.2	170.3	350.4	7.0	57.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	25.6	96.6	22.0	46.2	73.0	169.1	171.6	345.3	6.6	56.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	27.6	99.8	24.0	49.7	76.3	181.3	181.6	360.2	10.1	56.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	488	242	24.6	85.9	21.5	42.6	65.2	142.6	157.9	301.5	6.3	50.9	94	97
1958 Census <sup>2</sup> ....														

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE**    **Maurice H. Stans, Secretary**  
**Rocco C. Siciliano, Under Secretary**  
**BUREAU OF THE CENSUS**

The total value of narrow fabrics shipped by all producers in 1967 was \$404.4 million of which \$387.3 million, or 96 percent, were shipped by plants classified in industry 2241, Narrow Fabric Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 97 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2241, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-22G, Narrow Fabrics. The 1967 data as previously published for this survey are shown in table 3 together with the comparable totals reported in the census of manufactures.

In view of the differences between these figures, a review was undertaken of the data reported in each survey. Approximately two-thirds of the difference for woven narrow fabrics resulted from the omission of some plants from the annual survey. These plants are being added to the MA-22G survey and revised detailed data will be included in the annual report for narrow fabrics.

The remaining difference in woven narrow fabrics and virtually all of the difference for braided narrow fabrics are the result of reporting differences for individual plants furnishing data in both surveys. Any further revisions that may be necessary for the census of manufactures report will be included in the final report for this industry.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2241.--NARROW FABRIC MILLS													
United States, total.....	383	219	25.2	116.7	22.6	45.2	93.1	208.7	227.2	433.1	15.3	23.2	172.5
New Hampshire.....	15	8	0.6	3.2	0.5	1.0	2.3	8.7	3.1	11.8	(D)	(D)	(D)
Rhode Island.....	50	36	4.4	20.3	4.0	8.2	16.4	37.4	41.2	78.0	2.3	4.3	30.8
Middle Atlantic.....	139	64	7.3	35.8	6.4	12.3	27.7	53.5	57.1	110.4	1.6	7.1	52.6
New York.....	51	15	1.7	10.2	1.4	2.9	7.3	18.7	18.9	36.8	0.7	1.5	16.9
New Jersey.....	31	13	1.1	5.5	1.0	1.9	4.5	8.9	5.6	14.5	0.3	1.3	10.8
Pennsylvania.....	57	36	4.5	20.0	3.9	7.5	15.9	25.9	32.6	59.1	0.6	4.3	24.9
South Atlantic.....	81	61	7.6	32.2	7.0	14.3	26.7	64.3	77.8	140.5	5.8	(D)	(D)
Maryland.....	6	5	0.7	2.9	0.7	1.3	2.5	5.3	3.3	8.5	0.2	0.4	3.1
East South Central....	18	15	1.6	6.8	1.3	2.8	5.2	12.9	16.2	28.9	1.0	(D)	(D)
Alabama.....	7	7	1.0	4.6	0.8	1.7	3.3	7.9	10.5	18.3	0.6	0.9	6.0
Pacific.....	11	3	0.2	1.1	0.2	0.4	0.8	2.0	1.1	3.1	(Z)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

## 1967 CENSUS OF MANUFACTURES

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2241- --	NARROW FABRICS, TOTAL.....		(X)	404.4	(X)	303.2
22411 --	Woven narrow fabrics, total:					
22411 00	As reported in the census of manufactures <sup>1</sup> .....		(X)	291.9	(X)	211.1
	As reported on Census annual form MA-22G <sup>1</sup> .....		(X)	273.3	(X)	205.3
	Elastic fabrics, woven.....	Million lin. yds.....	1,145.8	82.6	882.7	63.5
	Corset and allied lines:					
22411 02	3/4" and under.....	..do.....	303.1	18.5	157.3	8.7
22411 03	Over 3/4" to 1-1/2".....	..do.....	83.8	8.3	79.6	7.9
22411 04	Over 1-1/2" to 3".....	..do.....	21.5	5.3	26.8	6.1
22411 05	Over 3" to 6".....	..do.....	2.6	1.5	2.7	1.7
22411 06	Over 6" to 12".....	..do.....				
22411 12	Underwear.....	..do.....	440.1	23.4	414.6	21.6
22411 21	Other apparel.....	..do.....	219.7	16.9	135.2	9.9
22411 23	Other uses.....	..do.....	75.0	8.6	66.4	7.5
	Nonelastic fabrics, woven.....		(X)	190.6	(X)	141.9
	Ribbons, woven edge:					
22411 83	Packaged for over-the-counter sale.....	Million lin. yds.....	245.3	6.3	134.7	5.4
22411 85	All other woven edge ribbons.....	..do.....	689.0	13.2	555.5	7.6
22411 71	Woven labels.....	Million labels.	2,895.6	24.1	3,061.2	21.5
	Tapes (weight less than 15 oz. per square yard):					
22411 51	Zipper tape.....	Million lin. yds.....	1,645.1	22.5	1,314.3	17.3
22411 52	Apparel tape, except zipper tape.....	..do.....	1,180.3	20.6	917.0	12.1
22411 54	Household articles tape.....	..do.....	200.2	2.8	150.7	1.7
22411 56	All other tape.....	..do.....	808.5	15.3	697.6	10.1
	Webbing (weight 15 oz. or more per square yard):					
22411 33	Apparel webbing.....	..do.....	44.5	2.4	87.4	4.1
22411 35	Household articles webbing.....	..do.....	160.9	5.7	192.0	11.0
22411 37	Safety belt webbing.....	..do.....	99.1	16.1	49.1	11.2
22411 39	All other webbing.....	..do.....	350.5	48.1	227.6	31.9
22411 98	All other woven nonelastic fabrics.....		(X)	13.5	(X)	9.2
22414 --	Braided narrow fabrics, total:					
22414 00	As reported in the census of manufactures <sup>1</sup> .....		(X)	70.0	(X)	59.8
	As reported on Census annual form MA-22G <sup>1</sup> .....		(X)	62.5	(X)	61.0
22414 11	Braids, elastic.....	Million lin. yds.....	1,718.5	25.7	1,860.8	25.3
	Braids, nonelastic:					
22414 21	Shoe and corset laces.....	Million lbs....	5.1	13.8	5.6	13.5
22414 31	Other nonelastic braids.....		(X)	23.0	(X)	22.2
22415 11	Covered rubber thread.....	Million lbs....	10.8	31.8	8.7	26.9
22410 00	Narrow fabrics, n.s.k. (For companies with 10 or more employees. See Note).....		(X)	5.9	(X)	5.4
22410 02	Narrow fabrics, n.s.k. (For companies with less than 10 employees. See Note).....		(X)	4.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Differences between the data collected in the Census of Manufactures and the Current Annual Survey MA-22G, Narrow Fabrics, are discussed in the text.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2241, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**U.S. DEPARTMENT OF COMMERCE**

**BUREAU OF THE CENSUS**

**WASHINGTON, D.C. 20233**

**POSTAGE AND FEES PAID**

**U.S. DEPARTMENT OF COMMERCE**

**OFFICIAL BUSINESS**

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

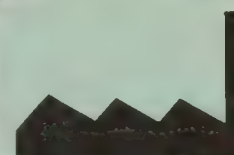
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-22B-1

## INDUSTRY SERIES

**preliminary  
report**

### Women's hosiery, except socks

SIC Code 2251

The Women's Full-Length and Knee-Length Hosiery, Seamless and Full-Fashioned, Industry includes establishments primarily engaged in knitting, dyeing, or finishing women's and misses' full-length and knee-length hosiery, both seamless and full-fashioned.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Women's Hosiery, Except Socks, Industry amounted to \$839.1 million, an increase of 38.3 percent compared with 1963. Value added by manufacture at \$414.8 million in 1967

was 40.0 percent more than value added in 1963. Average employment in the industry showed an increase of 12.7 percent from 1963 to a total of 58.0 thousand employees in 1967.

Of the \$839.1 million total value of shipments and other receipts of establishments classified as women's hosiery, except socks, \$34.6 million were products primary to other industries; and \$71.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See Appendix, Explanation of Forms 7)

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2251.--WOMEN'S HOSIERY, EXCEPT SOCKS													
1967 Census....	359	260	58.0	230.0	52.6	99.3	190.9	414.8	430.4	839.1	27.3	145.7	95	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	52.8	197.0	47.9	91.2	163.5	359.7	395.2	733.7	*43.4	133.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	52.0	185.1	47.3	88.4	155.2	334.1	354.8	679.7	36.8	112.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	49.8	175.9	45.2	86.9	145.1	316.8	330.4	645.2	19.4	107.1	(NA)	(NA)
1963 Census....	411	268	51.5	170.9	47.1	87.8	144.1	296.3	313.0	606.6	16.2	104.4	96	94
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued October 1.

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of women's hosiery, except socks, shipped by all producers in 1967 was \$765.1 million of which \$733.0 million, or 96 percent, were shipped by plants classified in industry 2251, Women's Hosiery, Except Socks, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 94 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	All em- ployees  (1,000)	Value added by manufac- ture  (million dollars)
	Total  (number)	With 20 employ- ees or more (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)						
INDUSTRY 2251. --WOMEN'S HOSIERY, EXCEPT SOCKS													
United States, total.....	359	260	58.0	230.0	52.6	99.3	190.9	414.8	430.4	839.1	27.3	51.5	296.3
New England.....	12	10	0.9	3.3	0.7	1.3	2.5	5.7	16.0	22.7	0.1	0.7	4.1
Middle Atlantic.....	90	54	5.8	24.9	5.2	9.6	19.2	41.9	39.2	80.7	1.3	5.6	25.5
Pennsylvania.....	68	41	5.0	21.6	4.4	8.2	16.5	36.5	32.7	68.6	1.1	5.0	21.9
South.....	245	191	50.4	198.4	45.8	86.8	166.3	358.6	366.7	718.1	25.8	(D)	(D)
South Atlantic.....	202	154	39.8	157.1	36.3	68.4	132.4	287.8	291.1	571.2	22.7	(D)	(D)
Virginia.....	8	7	0.9	3.9	0.9	1.9	3.2	5.9	6.0	11.9	0.9	1.4	6.5
North Carolina....	167	127	34.7	138.5	31.6	59.3	116.4	256.5	257.7	507.8	19.7	29.5	178.0
South Carolina....	11	10	1.9	6.8	1.8	3.3	5.9	11.9	18.1	30.1	(D)	1.1	7.9
Georgia.....	10	7	2.0	6.9	1.8	3.5	6.0	11.8	7.7	18.0	(D)	1.1	5.8
Tennessee.....	21	19	5.7	22.9	5.0	9.7	17.7	40.1	56.3	96.5	2.0	6.6	35.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2251- --	WOMEN'S HOSIERY, EXCEPT SOCKS, TOTAL.....		(X)	765.1	(X)	588.0
22511 --	Women's finished full-fashioned stockings.....	1,000 doz. prs.	3,749	26.2	9,960	56.4
	All nylon:					
22511 13	Full-length, nonstretch.....	..do.....	<sup>e</sup> 2,778	13.4	8,647	46.8
22511 15	Full-length, stretch.....	..do.....			<sup>2</sup> 792	<sup>2</sup> 6.2
22511 17	Knee-length, stretch and nonstretch.....	..do.....			( <sup>2</sup> )	( <sup>2</sup> )
22511 95	All other yarns and mixtures, including full-fashioned stretch tights.....	1,000 doz. prs.	971	12.8	177	2.0
22511 00	Women's and misses' finished full-fashioned hosiery, n.s.k.....	..do.....			344	1.5
22513 --	Women's finished seamless hosiery, full-length and knee-length....	..do.....	114,845	551.3	73,337	400.5
22513 11	Women's and misses' finished knee-length socks, all fibers, (including Campus, Bermudas, etc.) (sizes 8 to 11).....	..do.....	<sup>e</sup> 7,087	32.2	2,363	14.5
	Women's and misses' finished seamless stockings.....	..do.....	107,648	518.9	70,489	384.8
	All nylon:					
22513 13	Full-length, nonstretch.....	..do.....	81,639	343.4	58,893	300.0
22513 15	Full-length, stretch.....	..do.....	21,952	148.8	9,015	62.4
22513 17	Knee-length, stretch and nonstretch.....	..do.....	1,275	6.8	466	2.5
22513 31	Cotton or principally cotton.....	..do.....	<sup>e</sup> 511	1.8	423	1.6
22513 98	All other yarns and mixtures, including seamless stretch tights.....	..do.....	2,271	18.2	1,692	18.3
22513 00	Women's and misses' finished seamless hosiery, full-length and knee-length, n.s.k.....	..do.....	<sup>1</sup> 110	0.2	485	1.2
22514 --	Women's full-fashioned hosiery shipped in the greige.....	..do.....	2,347	7.9	6,414	20.9
	All nylon:					
22514 09	Shipments to other plants of reporting company for further processing.....	..do.....			4,524	15.8
22514 11	All other shipments.....	..do.....			1,538	3.8
22514 19	All other yarns and mixtures, including full-fashioned stretch tights.....	..do.....	2,347	7.9	352	1.2
22514 00	Women's and misses' full-fashioned hosiery, shipped in the greige, n.s.k.....	..do.....	-	-	-	-
22515 --	Women's seamless full-length and knee-length hosiery shipped in the greige.....	1,000 doz. prs.	56,306	140.8	32,397	103.4
22515 11	Women's and misses' knee-length socks (including Campus, Bermudas, etc.) (sizes 5 to 11).....	..do.....			419	1.3
	Women's and misses' seamless full-length and knee-length stockings:					
	All nylon:					
22515 19	Shipments to other plants of reporting company for further processing.....	..do.....	53,839	131.9	20,649	67.8
22515 21	All other shipments.....	..do.....			9,786	29.1
22515 23	Cotton or principally cotton.....	..do.....	<sup>e</sup> 1,516	4.3	336	0.6
22515 29	All other yarns and mixtures, including seamless stretch tights.....	..do.....	951	4.6	331	2.0
22515 00	Women's and misses' seamless full-length and knee-length hosiery, n.s.k.....	..do.....	-	-	876	2.5
22510 00	Women's full-length and knee-length hosiery, seamless and full- fashioned, n.s.k. (For establishments with more than 10 employees. See Note.).....		(X)	35.5		
22510 02	Women's full-length and knee-length hosiery, seamless and full- fashioned, n.s.k. (For establishments with less than 10 employees. See Note.).....		(X)	3.5	(X)	6.8

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. <sup>e</sup> From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity estimated based on other products reported in the product class.

<sup>2</sup>For 1963, includes less than 5 percent of knee-length hosiery combined with full-length stretch hosiery in order to avoid disclosing individual company operations.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million dozen)	Delivered cost (million dollars)	Quantity (million dozen)	Delivered cost (million dollars)
	INDUSTRY 2251.--WOMEN'S HOSIERY, EXCEPT SOCKS				
	Materials, containers, and supplies, total.....	(X)	350.4	(X)	279.8
225011	Hosiery in the greige.....	(X)	122.7	(X)	110.4
228102	Cotton yarns.....	( <sup>1</sup> )	( <sup>1</sup> )	7.8	6.8
228141	Nylon spun yarns.....	(NA)	11.2	0.8	2.1
282411	Nylon filament yarns.....	<sup>e</sup> 38.0	106.0	36.9	106.1
228145	Acrylic yarns.....	<sup>e</sup> 1.6	2.9	1.4	1.8
228011	All other yarns.....	(NA)	5.2	0.5	1.3
970099	All other materials, containers, and supplies (including cotton yarns).....	(X)	55.7	(X)	40.1
976000	Materials and supplies, n.s.k. <sup>2</sup> .....	(X)	46.6	(X)	11.2

<sup>e</sup>10 to 30 percent of the quantity was estimated. (NA) Not available. (X) Not applicable.

<sup>1</sup>Included with "All other materials, containers, and supplies."

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2251, these small establishments accounted for approximately 0.9 percent of payrolls and 1.5 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



1967 CENSUS OF  
MANUFACTURES

## INDUSTRY SERIES

preliminary  
report

## Hosiery, n.e.c.

SIC Code 2252

The Hosiery, Except Women's Full-Length and Knee-Length Hosiery, Industry includes establishments primarily engaged in knitting, dyeing, or finishing hosiery, except women's and misses' full-length and knee-length seamless and full-fashioned hosiery.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Hosiery, N.E.C., Industry amounted to \$508.6 million, an increase of 12.7 percent compared with 1963. Value added by manufacture at \$219.9 million in 1967 was 14.4 percent more

than value added in 1963. Average employment in the industry showed a decrease of 12.3 percent from 1963 to a total of 38.0 thousand employees in 1967.

Of the \$508.6 million total value of shipments and other receipts of establishments classified as hosiery, n.e.c., \$59.8 million were products primary to other industries; and \$30.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 88 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 91 percent in 1963.

The total value of hosiery, n.e.c., shipped by all producers in 1967 was \$447.7 million of which

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2252.--HOSIERY, N.E.C.													
1967 Census....	<sup>3</sup> 444	285	38.0	133.6	34.9	63.2	111.0	219.9	290.2	508.6	9.4	84.3	88	93
1966 ASM <sup>1</sup> .....	(NA)	(NA)	44.0	144.3	40.6	75.9	118.7	246.8	335.2	576.4	17.5	93.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	45.6	144.4	42.3	78.7	120.1	245.8	315.6	553.7	12.1	88.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	42.2	127.8	39.3	71.5	106.9	197.6	275.3	474.0	*9.9	73.9	(NA)	(NA)
1963 Census <sup>2</sup> ....	528	338	43.3	124.1	40.1	71.3	104.5	192.2	258.4	451.1	6.2	78.2	91	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

\$418.2 million, or 93 percent, were shipped by plants classified in industry 2252, Hosiery, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

2, and 4 may be compared with the product statistics in table 3.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2252.--HOSIERY, N.E.C.												
United States, total.....	444	285	38.0	133.6	34.9	63.2	111.0	219.9	290.2	508.6	9.4	43.3	192.2
New England.....	6	4	0.3	1.1	0.2	0.4	0.8	1.6	1.8	3.7	(Z)	0.7	4.0
Middle Atlantic.....	41	28	4.1	15.9	3.6	6.5	12.8	28.5	34.3	61.7	1.1	3.6	19.5
Pennsylvania.....	28	22	3.0	11.6	2.6	4.5	8.9	19.0	25.3	43.1	1.0	2.4	11.4
Wisconsin.....	5	5	0.9	3.4	0.8	1.4	2.6	4.6	3.9	9.1	(D)	(D)	(D)
South.....	388	245	32.3	111.4	29.9	54.3	93.3	183.0	248.2	429.8	8.2	37.2	158.9
South Atlantic.....	328	203	25.6	88.4	23.6	42.8	74.6	143.4	204.6	346.8	6.9	(D)	(D)
Virginia.....	6	6	0.7	2.4	0.6	1.2	1.9	3.9	7.2	11.1	0.2	1.0	3.0
North Carolina.....	290	174	21.6	74.5	20.0	36.2	63.1	124.9	176.6	299.5	6.3	24.1	105.8
Georgia.....	21	14	2.2	7.5	2.0	3.7	6.4	10.0	10.9	20.7	0.3	2.9	10.3
Tennessee.....	39	31	4.9	16.8	4.4	8.2	13.4	29.8	33.6	63.4	0.7	5.4	25.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified. (Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2252- --	HOSIERY, N.E.C., TOTAL.....		(X)	447.7	(X)	397.1
22522 --	Men's finished seamless hosiery.....	1,000 doz. prs.	51,559	234.7	55,531	202.1
	Men's half-hose, including bundle goods and knee-length (sizes 10 and up):					
22522 11	Nylon or principally nylon.....	do.	<sup>e</sup> 7,804	39.7	2,999	14.1
22522 13	Cotton or principally cotton.....	do.	<sup>e</sup> 6,832	19.1	11,215	32.1
22522 17	Wool or principally wool.....	do.	<sup>e</sup> 2,030	15.6	1,320	8.1
22522 19	All other yarns and mixtures.....	do.	2,111	9.2	716	3.1
	Men's slack hose (sizes 10 and up):					
22522 27	Nylon or principally nylon.....	1,000 doz. prs.	<sup>e</sup> 8,766	47.8	7,156	30.7
22522 31	Cotton or principally cotton.....	do.	<sup>e</sup> 5,993	19.8	11,001	33.1
22522 37	Acrylic or principally acrylic.....	do.	1,220	7.6	1,690	8.8
22522 39	All other yarns and mixtures.....	do.	1,081	5.1	2,032	9.2
	Men's athletic and crew socks:					
22522 53	Cotton or principally cotton.....	1,000 doz. prs.	7,354	22.2	10,399	30.5
22522 55	Wool or principally wool.....	do.	2,515	14.2	2,745	14.0
22522 57	Acrylic or principally acrylic.....	do.	3,804	25.1	1,733	9.9
22522 59	All other yarns and mixtures.....	do.	<sup>e</sup> 946	4.3	1,246	3.8
22522 00	Men's finished seamless hosiery, n.s.k.....	do.	<sup>1</sup> 1,103	5.0	<sup>1</sup> 1,279	4.7
22523 --	All other finished seamless hosiery.....	do.	43,119	128.5	54,474	144.4
	Boys' slack socks and knee length socks (sizes 5 to 11):					
22523 15	Cotton or principally cotton.....	do.	5,066	14.9	6,579	16.3
22523 19	All other yarns and mixtures.....	do.	735	3.0	1,635	5.3
	Boys' athletic and crew socks (sizes 5 to 11):					
22523 23	Cotton or principally cotton.....	do.	7,799	18.4	7,436	19.4
22523 29	All other yarns and mixtures.....	do.	1,414	5.5	1,417	4.9
	Misses' and children's anklets, including singlefold, triple-roll, and shoe top (sizes 5 to 11):					
22523 33	Cotton or principally cotton.....	do.	<sup>e</sup> 11,126	27.8	15,010	32.7
22523 35	Nylon or principally nylon.....	do.	5,119	18.3	2,882	7.8
22523 39	All other yarns and mixtures.....	do.	(NA)	8.6	738	4.0
	Misses' and children's athletic and crew socks (sizes 5 to 11):					
22523 43	Cotton or principally cotton.....	do.	2,078	5.1	3,624	10.3
22523 49	All other yarns and mixtures.....	do.	1,734	6.2	1,735	7.2
22523 65	Infants' hosiery, all types (sizes 3 to 6-1/2).....	do.	(NA)	9.0	6,279	14.1
	Slipper socks made in hosiery mills:					
22523 71	Finished, ready for customer sale.....	do.	<sup>e</sup> 690	3.8	625	4.9
22523 73	Partially finished, for sale to trade.....	do.	-	-	-	-
22523 98	All other finished seamless hosiery (including peds, children's knee-length socks, etc.).....	do.	1,741	7.9	4,623	12.4
22523 00	Finished seamless hosiery, n.s.k.....	do.	-	-	1,891	5.2
22524 --	Seamless hosiery (except women's full-length and knee-length) shipped in the greige.....	do.	22,896	61.0	18,401	43.2
22524 25	Men's hosiery, all types (sizes 10 and up).....	do.	13,925	44.1	9,899	27.8
22524 35	Boys' hosiery, all types (sizes 5 to 11).....	do.	3,367	6.5	1,411	2.5
22524 45	Misses' and children's anklets and socks (sizes 5 to 11) except misses' knee-length socks.....	do.	3,699	7.6	4,381	8.3
22524 55	Infants' hosiery, all types (sizes 3 to 6-1/2).....	do.	2,405	2.8	736	1.2
22524 98	All other seamless hosiery in the greige (including peds, etc.).....	do.	(NA)	-	1,974	3.3
22524 00	Seamless hosiery shipped in the greige, n.s.k.....	do.	-	-	-	-
22520 00	Hosiery, except women's full-length and knee-length hosiery, n.s.k. (Includes establishments with 10 or more employees. See Note.).....		(X)	17.6	(X)	7.4
22520 02	Hosiery, except women's full-length and knee-length hosiery, n.s.k. (Includes establishments with less than 10 employees. See Note.).....		(X)	5.9	(X)	7.4

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. <sup>e</sup> From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified.

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity data estimated based on the unit value relationship reported for other products in this product class.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2252.--HOSIERY N.E.C.				
	Materials, containers, and supplies, total.....	(X)	239.3	(X)	226.2
225011	Hosiery in the greige.....	(NA)	56.0	(X)	37.8
228102	Cotton yarns.....	(NA)	38.6	82.3	68.0
228141	Nylon spun yarns.....	<sup>e</sup> 15.0	9.4	3.2	7.2
282411	Nylon filament yarns.....	<sup>e</sup> 13.8	30.2	13.5	30.0
228145	Acrylic yarns.....	(NA)	23.7	7.9	13.4
228011	All other yarns.....	(NA)	19.3	9.6	16.5
970099	All other materials, containers, and supplies.....	(X)	39.4	(X)	37.3
976000	Materials and supplies, n.s.k. <sup>1</sup> .....	(X)	22.7	(X)	16.1

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed material data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2252, these small establishments accounted for approximately 1.3 percent of payrolls and 2.1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Knit outerwear mills

SIC Code 2253

**preliminary  
report**

Knit Outerwear Mills include establishments primarily engaged in knitting outerwear from yarn, or in manufacturing outerwear from knit fabric produced in the same establishment. Establishments primarily engaged in handknitting outerwear for the trade are included in this industry. Establishments primarily engaged in manufacturing woven or purchased knit fabric outerwear are classified in Major Group 23.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Knit Outerwear Mills amounted to

\$1,269.8 million, an increase of 21.5 percent compared with 1963. Value added by manufacture at \$599.1 million in 1967 was 29.2 percent more than value added in 1963. Average employment in the industry showed an increase of 7.3 percent from 1963 to a total of 73.6 thousand employees in 1967.

Of the \$1,269.8 million total value of shipments and other receipts of establishments classified as knit outerwear mills, \$91.8 million were products primary to other industries; and \$225.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 91 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2253.--KNIT OUTERWEAR MILLS													
1967 Census....	1,168	642	73.6	342.3	64.0	122.1	260.5	599.1	672.8	1,269.8	28.4	176.8	91	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	77.0	330.2	67.3	131.1	257.3	572.4	696.7	1,273.1	49.4	184.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	74.6	310.5	65.2	126.5	245.1	570.8	714.8	1,262.3	25.2	181.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	73.2	289.6	64.0	124.9	222.7	496.0	636.2	1,123.3	16.7	176.6	(NA)	(NA)
1963 Census....	1,185	666	68.6	266.6	60.7	113.6	205.8	463.6	586.9	1,045.5	17.3	135.5	92	97
1962 ASM <sup>1</sup> .....	(NA)	(NA)	67.5	257.5	59.3	112.7	196.6	441.9	538.3	977.8	13.0	127.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	64.2	234.6	56.3	103.5	177.5	399.5	507.8	903.0	11.9	113.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	63.8	226.0	55.9	103.3	172.7	395.4	449.1	894.6	11.2	102.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	66.5	227.0	58.1	110.3	173.5	381.4	535.0	917.0	*14.6	102.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,123	633	60.6	204.0	52.6	97.6	154.8	339.9	473.1	813.6	11.2	96.7	91	96

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

The total value of knit outerwear shipped by all producers in 1967 was \$1,001.8 million of which \$952.1 million, or 95 percent, were shipped by plants classified in industry 2253, Knit Outerwear Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 97 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2253.--KNIT OUTERWEAR MILLS													
United States, total.....	1,168	642	73.6	342.3	64.0	122.1	260.5	599.1	672.8	1,269.8	28.4	68.6	463.6
New England.....	48	31	5.6	26.0	4.6	8.8	18.2	37.1	57.6	99.4	1.5	5.1	38.8
New Hampshire.....	7	5	1.6	7.0	1.3	2.6	5.6	9.8	15.8	27.4	0.4	1.4	10.0
Massachusetts.....	24	14	2.8	14.1	2.3	4.2	8.8	20.0	36.6	59.4	0.3	2.6	22.7
Middle Atlantic.....	898	495	41.2	199.8	35.9	68.5	155.9	360.7	381.8	742.2	14.1	41.7	304.2
New York.....	667	337	22.2	113.1	19.5	37.7	88.6	199.8	234.4	434.1	8.6	22.7	181.1
New Jersey.....	115	72	5.2	25.7	4.6	9.1	20.6	47.7	44.4	91.6	2.2	4.9	30.5
Pennsylvania.....	116	86	13.5	61.0	11.8	21.7	46.7	113.2	103.0	216.5	3.3	14.1	92.7
North Central.....	37	26	3.9	18.0	3.6	6.3	13.1	29.0	31.1	60.5	1.1	4.4	25.6
Wisconsin.....	7	7	1.0	4.1	0.8	1.4	2.8	7.4	5.4	13.1	0.5	1.0	6.5
South.....	105	60	20.0	83.7	17.8	33.9	64.3	144.7	158.6	296.7	10.5	14.4	70.8
North Carolina.....	60	31	6.9	29.6	6.2	11.8	23.4	48.2	39.5	84.7	(D)	3.5	19.1
Tennessee.....	7	5	0.6	1.8	0.5	0.9	1.5	2.1	3.5	5.6	(D)	0.8	2.1
West.....	80	30	2.9	14.9	2.1	4.6	8.9	27.5	43.6	70.9	1.0	3.1	24.2
Washington.....	6	3	0.2	0.7	0.1	0.2	0.4	1.0	0.8	1.8	0.1	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2253- --	KNIT OUTERWEAR, TOTAL <sup>1</sup> .....		(X)	1,001.8	(X)	840.0
22531 --	Sweaters, knit jackets, and jerseys (made from yarns or fabrics knit in the same establishment).....		11,812	483.0	(X)	483.1
22531 10	Men's and boys'.....	1,000 doz.....	4,027	208.7	3,757	183.1
22531 30	Women's, misses', and juniors'.....	...do.....	6,064	225.8	5,630	233.9
22531 60	Girls', teenage girls', children's, and infants', including infants' sacques.....	...do.....	1 596	43.6	2,183	49.8
22531 00	Sweaters, jackets, jerseys, pullovers, and sacques, n.s.k.....		<sup>2</sup> 125	4.9	(X)	16.4
22532 --	Knit outerwear sport shirts (made from yarns or fabrics knit in the same establishment).....	1,000 doz.....	12,202	213.1	10,841	159.9
22532 10	Men's and boys'.....	...do.....	8,876	160.6	7,876	123.6
22532 30	Women's, misses', and juniors'.....	...do.....	<sup>e</sup> 1,047	23.3	793	13.0
22532 40	Girls', teenage girls', children's, and infants'.....	...do.....	2,252	28.8	2,027	21.1
22532 00	Knit outerwear sport shirts, n.s.k.....	...do.....	<sup>2</sup> 227	0.4	<sup>2</sup> 145	2.2
22533 --	All other knit outerwear products (made from yarns or fabric knit in the same establishment).....		(X)	213.8	(X)	142.8
22533 10	Women's, misses', and juniors': Knit dresses and suits.....	1,000 doz.....	891	121.3	586	52.4
22533 20	All other knit outerwear, including knit swimwear.....		(X)	41.8	(X)	36.8
22533 40	Men's and boys'.....		(X)	22.7	(X)	14.8
22533 60	Girls', teenage girls', children's, and infants'.....		(X)	27.6	(X)	29.2
22533 00	Other knit outerwear products, n.s.k.....		(X)	0.4	(X)	9.7
22530 00	Knit outerwear products, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	80.2	(X)	54.1
22530 02	Knit outerwear products, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	11.7		
22539 11	Contract receipts for knitting and/or dyeing knit outerwear products owned by others.....		(X)	<sup>3</sup> 1,523	(X)	<sup>3</sup> 109.5

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>The data included in this table are only for products made by Knitting Mills. The 1967 and 1963 quantity and value data for each of the products, including output of the cut-and-sew establishments, will be shown in the following preliminary publications.

Sweaters, jackets, and jerseys:  
Men's and boys' - industry 2329  
Women's, misses', and juniors' - industry 2339  
Girls', children's, and infants' - industry 2369

Knit outerwear sport shirts:  
Men's and boys' - industry 2321  
Women's, misses', and juniors' - industry 2331  
Girls', children's, and infants' - industry 2361

Other knit outerwear:  
Men's and boys' - industry 2329  
Women's, misses', and juniors' - industry 2339  
Girls', children's, and infants' - industry 2369

<sup>2</sup>Quantity data estimated based on the unit-value relationship reported for other products in the product class.

<sup>3</sup>Commission receipts are not included in the total shown for knit outerwear.

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2253.—KNIT OUTERWEAR MILLS				
	Material, containers, and supplies, total.....	(X)	492.3	(X)	441.0
225601	Knitted fabrics, purchased (cotton, wool, manmade fibers, etc.).....	(NA)	21.4		
228110	Carded cotton yarns.....	53.6	21.4	3.2	3.4
228120	Combed cotton yarns.....	17.6	32.4	<sup>r</sup> 51.1	<sup>r</sup> 34.6
228130	Rayon and acetate spun yarns.....	(NA)	18.2	<sup>r</sup> 24.5	<sup>r</sup> 22.2
228141	Nylon spun yarns.....	(NA)	12.6	(Z)	(Z)
228145	Acrylic yarns.....	<sup>e</sup> 8.5	18.8		
228301	Wool yarns.....	44.6	86.1	7.3	14.5
228013	All other yarns.....	29.0	73.9	39.4	78.2
282301	Rayon and acetate filament yarns.....	14.2	31.3	36.6	88.9
282411	Nylon filament yarns.....	(NA)	4.0	9.2	19.4
970099	All other materials, containers, and supplies.....	8.7	18.8	0.6	0.5
976000	Materials, containers, and supplies, n.s.k.....	(X)	82.5	6.6	15.6
		(X)	92.3	(X)	<sup>1</sup> 88.2
				(X)	75.1

(NA) Not available.

n.s.k. Not specified by kind.

<sup>r</sup>Revised.

(X) Not applicable.

(Z) Less than 0.1 when rounded.

<sup>1</sup>For 1963, all other material (code 970099) includes 7.4 million pounds of manmade fiber, staple and tow valued at \$14.8 million.



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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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**OFFICIAL BUSINESS**

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U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES



MC67(P)-22B-4

## INDUSTRY SERIES

### Knit underwear mills

SIC Code 2254

preliminary  
report

Knit Underwear Mills include establishments primarily engaged in knitting underwear and nightwear from yarn, or in manufacturing underwear and nightwear from knit fabric produced in the same establishment. Establishments primarily engaged in manufacturing underwear and nightwear from purchased knit fabric are classified in Major Group 23.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as knit underwear mills amounted to \$445.3 million, an increase of 22 percent compared with

1963. Value added by manufacture at \$203.3 million in 1967 was 19 percent more than value added in 1963. Average employment in the industry showed an increase of 8.1 percent from 1963 to a total of 30.7 thousand employees in 1967.

Of the \$445.3 million total value of shipments and other receipts of establishments classified as knit underwear mills, \$75.1 million were products primary to other industries; and \$13.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2254.--KNIT UNDERWEAR MILLS													
1967 Census....	113	97	30.7	115.8	27.4	49.6	88.3	203.3	251.8	445.3	7.2	101.6	87	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	32.3	118.4	28.8	54.3	92.5	199.6	252.3	448.2	8.3	100.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	31.1	111.3	27.8	52.3	87.3	183.3	240.5	417.5	7.4	94.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	29.1	102.4	26.0	49.5	81.5	173.2	220.9	392.5	5.4	85.9	(NA)	(NA)
1963 Census....	118	104	28.4	95.9	25.6	48.1	76.1	170.7	200.4	364.8	4.8	84.3	89	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	29.0	94.2	25.9	48.7	73.0	157.2	212.6	368.3	4.1	86.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	27.9	87.7	25.0	46.1	68.1	145.1	187.4	333.4	3.9	78.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	28.5	87.9	25.6	47.5	68.7	137.6	169.1	304.0	5.4	70.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	31.9	98.6	28.7	55.2	78.9	162.9	197.8	359.5	4.7	70.4	(NA)	(NA)
1958 Census <sup>2</sup> ....	141	123	29.2	84.8	25.8	47.3	67.6	145.6	166.7	310.8	5.9	62.7	89	89

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of knit underwear and nightwear shipped by all producers in 1967 was \$384.7 million of which \$349.2 million, or 91 percent, were shipped by plants classified in industry 2254, Knit Underwear Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2254.—KNIT UNDERWEAR MILLS													
United States, total.....	113	97	30.7	115.8	27.4	49.6	88.3	203.3	251.8	445.3	7.2	28.4	170.7
Northeast.....	71	61	7.9	31.1	7.2	13.1	23.9	52.6	99.7	148.2	1.2	8.6	49.4
Pennsylvania.....	50	44	6.0	23.5	5.5	10.0	18.5	39.0	78.7	114.9	0.8	6.7	38.0
South Atlantic.....	23	17	10.4	37.2	9.5	16.7	30.2	67.9	69.8	132.6	2.3	(D)	(D)
North Carolina.....	16	10	6.7	24.4	6.1	10.8	19.6	44.9	39.0	81.2	2.0	5.4	30.0
Mississippi.....	5	5	1.7	6.2	1.5	2.9	5.2	8.1	9.1	17.7	0.3	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers (million dollars)	
		1967	1963
2254- --	KNIT UNDERWEAR AND NIGHTWEAR, TOTAL <sup>1</sup> .....	384.7	336.4
22541 --	Men's and boys' knit underwear and nightwear (Made from yarns of fabrics knit in the same establishment).....	269.5	221.5
22541 10	Men's and boys' knit underwear.....	262.3	213.4
22541 20	Men's and boys' knit nightwear.....	7.2	6.5
22541 00	Men's and boys' knit underwear and nightwear, n.s.k.....	-	1.5
22542 00	Women's and children's knit underwear (Made from yarns or fabrics knit in the same establishment).....	66.9	70.8
22543 00	Women's and children's knit nightwear (Made from yarns or fabrics knit in the same establishment).....	45.5	43.1
22540 00	Knit underwear and nightwear, n.s.k. (For companies with 10 or more employees. See Note.).....	2.5	1.1
22540 02	Knit underwear and nightwear, n.s.k. (For companies with less than 10 employees. See Note.).....	0.3	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>1</sup>The data included in this table are only for products made by knitting mills. The 1967 and 1963 quantity and value data for each of the products, including output of the cut-and-sew establishments, will be shown in the following preliminary publications:

Men's and boys' nightwear	SIC code 2321
Men's and boys' underwear	SIC code 2322
Women's and children's underwear and nightwear	SIC code 2341

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2254.--KNIT UNDERWEAR MILLS				
	Materials, containers, and supplies, total.....	(X)	199.3	(X)	163.6
225601	Knitted fabrics, purchased (cotton, wool, manmade fibers, etc.).....	(NA)	19.5		8.3
228110	Carded cotton yarns.....	61.2	37.5	55.7	37.0
228120	Combed cotton yarns.....	75.6	63.1	59.9	49.4
228130	Rayon and acetate spun yarns.....	(NA)	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>3</sup> )
228141	Nylon spun yarns.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
228145	Acrylic yarns.....	(NA)	( <sup>1</sup> )	0.6	1.2
228301	Wool yarns.....	(NA)	( <sup>1</sup> )	(Z)	(Z)
228013	All other yarns.....	7.8	9.8	2.1	2.8
282301	Rayon and acetate filament yarns.....	(NA)	( <sup>1</sup> )	24.4	24.1
282411	Nylon filament yarns.....	<sup>e</sup> 2.7	<sup>3</sup> 4.9	<sup>3</sup> 2.9	<sup>3</sup> 6.9
970099	All other materials, parts, containers, and supplies.....	(X)	<sup>1</sup> 56.2	(X)	39.0
976000	Materials, containers, and supplies, n.s.k.....	(X)	8.3	(X)	14.4

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable. (Z) Less than 0.1 when rounded.

<sup>1</sup>For 1967, included with "All other materials."

<sup>2</sup>For 1963, included with "Rayon and acetate filament yarns" to avoid disclosing operations of individual companies.

<sup>3</sup>Included with "Nylon filament yarns" to avoid disclosing operations of individual companies.

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Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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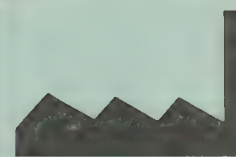
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Knit fabric mills

SIC Code 2256

preliminary  
report

Knit Fabric Mills include establishments primarily engaged in knitting tubular or flat fabric, and in dyeing or finishing knit fabric.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as knit fabric mills amounted to \$1,349.3 million, an increase of 65 percent compared with 1963. Value added by manufacture at \$437.9 million in 1967 was 73 percent more than value added in 1963. Average employment in the industry showed an increase of

44 percent from 1963 to a total of 36.1 thousand employees in 1967.

Of the \$1,349.3 million total value of shipments and other receipts of establishments classified as knit fabric mills, \$28.2 million were products primary to other industries; and \$109.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

The total value of knit fabric shipped by all producers in 1967 was \$1,311.1 million of which \$1,212.1 million, or 92 percent, were shipped

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2256.--KNIT FABRIC MILLS														
1967 Census....	538	289	36.1	196.7	30.6	65.3	144.7	437.9	918.1	1,349.3	45.9	164.6	98	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	32.0	164.3	27.1	58.3	119.2	396.1	776.6	1,143.6	59.5	159.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	28.3	140.2	23.9	51.6	102.8	333.3	694.3	1,017.3	28.2	125.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	26.9	130.1	22.9	49.8	97.2	280.6	628.8	902.3	25.3	109.6	(NA)	(NA)
1963 Census....	518	243	25.0	117.5	21.4	46.5	88.3	252.9	569.0	817.4	18.4	96.9	95	93
1962 ASM <sup>1</sup> .....	(NA)	(NA)	20.5	97.7	17.5	37.9	71.7	204.5	447.4	655.5	16.3	69.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	20.4	92.2	17.5	37.2	68.2	191.7	427.1	626.1	12.5	63.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	19.3	83.8	16.5	34.6	62.5	168.7	382.6	553.5	8.7	62.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	19.4	82.3	16.8	35.8	62.4	180.3	369.2	536.5	9.8	61.4	(NA)	(NA)
1958 Census <sup>2</sup> ....	357	181	18.4	73.9	15.7	32.3	55.7	147.4	336.1	487.2	7.1	56.0	94	90

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

by plants classified in industry 2256, Knit Fabric Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 93 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2256, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MQ-22K, Shipments of Knit Cloth, Including Interplant Transfers.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See Appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2256.--KNIT FABRIC MILLS												
United States, total.....	538	289	36.1	196.7	30.6	65.3	144.7	437.9	918.1	1,349.3	45.9	25.0	252.9
New England.....	42	34	5.8	30.6	4.7	10.0	21.3	54.4	78.8	136.5	3.7	4.3	36.5
Massachusetts.....	17	14	3.7	19.2	2.9	6.3	12.7	32.3	51.3	85.9	1.1	2.7	22.9
Connecticut.....	11	8	0.4	2.3	0.3	0.7	1.6	5.5	8.6	14.1	0.8	0.3	2.0
Middle Atlantic.....	354	147	15.3	91.3	12.8	27.5	67.2	208.8	408.0	612.5	19.0	10.9	121.6
New York.....	222	76	6.7	40.0	5.4	11.7	28.6	89.1	208.8	297.8	7.3	5.4	64.7
New Jersey.....	60	2.8	2.9	18.3	2.5	5.3	13.8	47.2	77.8	122.5	4.1	1.7	19.3
Pennsylvania.....	72	43	5.8	33.0	5.0	10.5	24.7	72.5	121.4	192.2	7.6	3.8	37.6
North Central.....	12	7	0.6	3.8	0.5	1.0	2.6	6.5	9.3	16.0	(D)	0.7	8.1
South Atlantic.....	113	88	12.3	60.8	10.6	22.8	45.8	144.7	385.1	523.7	19.4	7.5	69.4
Virginia.....	8	6	1.0	4.5	0.9	1.8	4.0	15.3	20.8	35.8	1.2	(D)	(D)
North Carolina.....	86	62	9.0	45.4	7.6	16.8	33.3	107.3	298.8	400.5	14.4	5.5	52.2
South Carolina.....	14	13	1.8	8.3	1.5	3.0	6.7	18.3	58.8	77.0	2.5	0.7	5.9
East South Central.....	10	8	2.0	8.7	1.8	3.6	7.0	19.2	29.8	49.3	2.7	1.5	15.5
Alabama.....	4	4	0.4	1.8	0.4	0.8	1.5	5.2	10.2	15.4	(D)	(D)	(D)
California.....	7	5	0.2	1.5	0.2	0.4	0.8	4.3	7.0	11.3	(D)	0.1	1.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2256- --	KNIT FABRICS, TOTAL <sup>1</sup> .....	Million lbs...	(X)	1,311.1	449.2	742.5
22561 --	Warp knit fabrics.....	...do.....	318.9	548.0	169.6	318.7
22561 10	Finished.....	...do.....	234.6	427.4	125.9	248.7
22561 20	Greige goods.....	...do.....	84.3	120.6	43.7	70.0
22562 --	Circular knit fabrics.....	...do.....	401.3	678.3	275.9	417.8
22562 10	Finished.....	...do.....	360.3	639.0	258.6	397.5
22562 20	Greige goods.....	...do.....	36.5	39.3	17.3	20.3
22560 00	Knit fabrics, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	75.8	3.6	6.0
22560 02	Knit fabrics, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	9.0		
22569 11	Receipts for commission knitting and/or dyeing knit fabrics.....	.....	(X)	81.0		

Product code	Product	Unit of measure	1967		1963
			Shipments of knit cloth, including interplant transfers		Shipments of knit cloth for sale
			Quantity	Value (million dollars)	Quantity
(AS REPORTED ON CENSUS QUARTERLY FORM MQ-22K)					
2256- --	Knit fabrics, total.....	Million lbs..	682.8	1,135.5	400.9
22561 --	Warp knit fabrics.....	...do.....	300.9	500.6	164.7
22561 10	Finished.....	...do.....	225.3	402.1	119.5
22561 20	Greige goods.....	...do.....	75.6	98.5	45.2
22562 --	Circular knit fabrics.....	...do.....	381.9	634.9	236.2
22562 10	Finished.....	...do.....	355.5	608.0	226.1
22562 20	Greige goods.....	...do.....	26.4	26.9	10.1

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Detailed information on shipments of knit cloth for sale during 1963 which were collected on Census annual Form MA-22K, "Knit Cloth For Sale," excluded knit cloth shipped to other plants of the same company whereas the information shown in both the 1967 census and the current industrial report for 1967, entitled, "Shipments of Knit Cloth Including Interplant Transfers" are directly comparable. Differences in the 1967 data are due primarily to reporting discrepancies for individual companies and inclusion of a few establishments reporting in the census that are not on the mailing panel of the quarterly survey MQ-22K.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity <sup>1</sup> (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2256.—KNIT FABRIC MILLS				
	Materials, containers, and supplies, total.....	(X)	798.7	(X)	507.5
225601	Knitted fabrics, purchased (cotton, wool, manmade fibers, etc.).....	(NA)	78.5	26.2	25.3
228110	Carded cotton yarns.....	<sup>e</sup> 86.2	57.2	85.5	55.2
228120	Combed cotton yarns.....	<sup>e</sup> 69.4	62.0	72.4	61.6
228130	Rayon and acetate spun yarns.....	<sup>e</sup> 13.2	17.2	8.7	8.5
228141	Nylon spun yarns.....	9.3	16.0	6.9	12.1
228145	Acrylic yarns.....	<sup>e</sup> 34.0	48.1	19.6	25.6
228301	Wool yarns.....	14.9	25.5	13.1	27.7
228013	All other yarns.....	<sup>e</sup> 29.7	51.1	36.1	47.6
282301	Rayon and acetate filament yarns.....	142.6	119.0	84.1	61.1
282411	Nylon filament yarns.....	91.6	153.1	56.1	110.9
970099	All other materials, containers, and supplies.....	(X)	85.7	(X)	58.0
976000	Materials, containers, and supplies, n.s.k. <sup>2</sup> .....	(X)	85.3	(X)	13.8

<sup>e</sup>10 to 30 percent of the quantity is estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>The quantity figures shown in this report differ from the data in Census quarterly series MQ-22K primarily because the information shown above in table 4 represent material consumed by plants classified in industry 2256, "Knit Fabric Mills," whereas, figures noted in series MQ-22K are on a wherever made basis. (For example, the material consumed in the manufacture of knit cloth for sale by a knit underwear mill--SIC 2254 would be included in series MQ-22K as a material item and in the quinquennial census report would appear as material consumed by industry 2254. The product output of this plant relating to knit fabric shipments would appear in table 3 of industry report 2256.) These data differ also because of reporting differences by individual companies, and some misclassification of yarn. Consideration must also be given to the large n.s.k., material code 976000 (see footnote 2).

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed material data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2256, these small establishments accounted for approximately 0.6 percent of payrolls and 0.5 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

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**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

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**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
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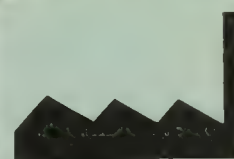
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Knitting mills, n.e.c.

SIC Code 2259

The Knitting Mills, Not Elsewhere Classified, Industry includes establishments primarily engaged in knitting gloves and other articles, not elsewhere classified.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Knitting Mills, N.E.C., amounted to \$39.0 million, a decrease of 4 percent compared with 1963. Value added by manufacture at \$22.4

million in 1967 was 10 percent more than value added in 1963. Average employment in the industry showed a decrease of 17 percent from 1963 to a total of 3.0 thousand employees in 1967.

Of the \$39.0 million total value of shipments and other receipts of establishments classified as knitting mills, n.e.c., \$2.0 million were products primary to other industries; and \$5.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2259.--KNITTING MILLS, N.E.C.													
1967 Census....	<sup>3</sup> 63	31	3.0	12.8	2.7	5.2	10.4	22.4	16.5	39.0	1.3	4.7	94	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	*3.7	*13.6	*3.5	*6.8	*10.6	*26.9	*28.7	*55.4	*1.3	*6.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	*3.5	*11.7	*3.2	*6.1	*9.4	*23.7	*23.4	*46.3	*0.5	*6.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	3.7	13.1	3.3	6.2	10.1	25.5	21.1	47.3	*0.7	5.9	(NA)	(NA)
1963 Census....	88	45	3.6	12.5	3.2	6.1	9.9	20.3	20.3	40.7	0.3	6.3	93	86
1962 ASM <sup>1</sup> .....	(NA)	(NA)	3.4	11.5	2.9	5.5	8.7	17.9	19.5	37.3	(Z)	6.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	3.5	11.3	3.1	5.6	8.5	17.0	21.0	37.4	(Z)	7.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	3.5	11.2	3.0	5.7	8.5	19.3	16.3	35.9	(S)	5.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	3.7	11.4	3.1	5.9	8.5	19.2	17.7	36.8	(S)	4.7	(NA)	(NA)
1958 Census <sup>2</sup> ...	75	38	3.2	9.6	2.8	4.9	7.1	14.5	15.7	30.1	0.3	4.8	91	78

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (Z) Less than \$50 thousand.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 9 and 10, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of knit products, n.e.c., shipped by all producers in 1967 was \$36.2 million of which \$31.2 million, or 86 percent, were shipped by plants classified in industry 2259, Knitting Mills, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 86 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2259.--KNITTING MILLS, N.E.C.													
United States, total.....	63	32	3.0	12.8	2.7	5.2	10.4	22.4	16.5	40.0	1.3	3.6	20.3
Northeast.....	45	22	1.5	7.2	1.3	2.4	5.5	12.4	8.2	20.7	1.2	1.8	11.5
New York.....	27	14	0.8	3.5	0.7	1.2	2.6	6.6	4.9	11.4	0.3	1.2	8.5
Pennsylvania.....	10	5	0.3	1.3	0.2	0.4	1.0	2.1	2.6	4.8	(Z)	0.4	2.3
South:													
North Carolina.....	5	3	0.2	0.9	0.2	0.4	0.7	1.3	1.6	2.8	(D)	0.3	1.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified. (Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2259- --	KNITTING MILL PRODUCTS, N.E.C., TOTAL.....		(X)	36.2	(X)	39.9
22590 10	Knit dress and semidress gloves and mittens, including fabric and leather combinations <sup>1</sup> .....	1,000 doz. prs.	790	9.3	1,015	10.7
22590 70	Knit work gloves and mittens, including knit fabric and leather combinations <sup>1</sup> .....	do.....	699	5.1	596	3.2
22590 98	Other knitting mill products, n.e.c.....		(X)	17.4	(X)	22.7
22590 00	Other knitting mill products, including commission receipts for making knit gloves and mittens, n.s.k. (for companies with 10 or more employees. See Note.).....		(X)	3.6	(X)	3.3
22590 02	Other knitting mill products, including commission receipts for making knit gloves and mittens, n.s.k. (for companies with less than 10 employees. See Note.).....		(X)	0.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(X) Not applicable

<sup>1</sup>Includes only knit gloves and mittens made in knitting mills. The total shipment of these products, including the output by cut-and-sew shops from purchased fabric, are shown in the report for industry 2381, Fabric Dress and Work Gloves.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2259.--KNITTING MILLS, N.E.C.				
	Materials, containers, and supplies, total.....	(X)	15.3	(X)	18.4
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	( <sup>1</sup> )	( <sup>1</sup> )	1.1	0.5
228110	Carded cotton yarns.....	8.0	4.6	7.8	4.3
228120	Combed cotton yarns.....			2.9	2.5
228130	Rayon and acetate spun yarns.....	}	(1)	( <sup>2</sup> )	( <sup>2</sup> )
228141	Nylon spun yarns.....			( <sup>3</sup> )	( <sup>3</sup> )
228145	Acrylic yarns.....			0.8	1.4
228301	Wool yarns.....			( <sup>2</sup> )	0.6
228013	All other yarns.....			0.8	0.9
282301	Rayon and acetate filament yarns.....			<sup>2</sup> 1.2	<sup>2</sup> 1.0
282411	Nylon filament yarns.....			( <sup>2</sup> )	<sup>3</sup> 0.4
970099	All other materials, containers, and supplies.....		7.3	(X)	2.9
976000	Materials, containers, and supplies, n.s.k. <sup>4</sup> .....	(X)	3.4	(X)	3.9

n.e.c. Not elsewhere classified. (X) Not applicable.

<sup>1</sup>For 1967, included with all other products.

<sup>2</sup>For 1963, included with rayon and acetate filament yarn to avoid disclosing operations of individual companies.

<sup>3</sup>For 1963, included with nylon filament yarns to avoid disclosing operations of individual companies.

<sup>4</sup>This item represents the total cost of materials for establishments that did not report detailed material data. For 1967, this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2259, these small establishments accounted for approximately 1.5 percent of payrolls and 2.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

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"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Finishing plants, cotton

SIC Code 2261

**preliminary  
report**

The Finishers of Broadwoven Fabrics of Cotton Industry includes establishments primarily engaged in finishing purchased cotton broadwoven fabrics, or finishing such fabrics on a commission basis. These finishing operations include bleaching, dyeing, printing (roller, screen, flock, plisse), and other mechanical finishing such as pre-shrinking, calendering and napping. This industry also includes the shrinking and sponging of cloth for the trade, and chemical finishing for water repellency, fire resistance, and mildew proofing. Establishments primarily engaged in finishing wool broadwoven fabrics are classified in industry 2231; knit goods in Group 225; and those coating or impregnating fabrics in industry 2295.

The classification of establishments for which data are tabulated in this report is based upon the

definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Finishing Plants, Cotton Industry amounted to \$893.9 million, an increase of 3 percent compared with 1963. Value added by manufacture at \$313.8 million in 1967 was 6 percent less than value added in 1963. Average employment in the industry showed a decrease of 15 percent from 1963 to a total of 35.7 thousand employees in 1967.

Of the \$893.9 million total value of shipments and other receipts of establishments classified as finishing plants, cotton, \$222.4 million were products primary to other industries; and \$44.0

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2261.--FINISHING PLANTS, COTTON														
1967 Census....	216	136	35.7	193.0	30.3	64.3	148.6	313.8	579.5	893.9	27.7	117.0	74	58
1966 ASM <sup>1</sup> .....	(NA)	(NA)	35.1	182.2	29.5	63.2	139.2	328.9	532.9	853.9	27.6	116.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	34.9	175.6	29.2	63.3	134.1	317.8	477.4	792.5	34.7	109.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	43.6	207.1	36.9	78.7	158.9	352.8	579.0	929.0	32.3	111.9	(NA)	(NA)
1963 Census....	238	140	42.1	190.5	35.5	74.9	146.8	332.3	536.9	869.7	29.3	108.4	81	60
1962 ASM <sup>1</sup> .....	(NA)	(NA)	42.4	188.0	36.1	76.7	146.2	337.4	459.1	781.6	21.2	77.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	44.1	188.4	37.3	78.2	145.7	328.9	452.7	776.2	17.7	70.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	45.5	189.8	39.6	79.3	147.1	309.1	452.9	752.5	23.7	70.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	49.0	198.7	41.6	87.9	156.7	314.6	483.9	795.0	19.6	62.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	446	174	49.2	189.9	42.1	86.5	149.2	289.1	399.1	686.2	15.7	54.6	85	57

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

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**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

million were receipts for miscellaneous activities. The industry shipments of primary products represented 74 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 81 percent in 1963.

The total value of finished cotton broadwoven fabrics shipped by all producers in 1967 was \$1,084.9 million of which \$970.3 million, or 89 percent, were shipped by plants classified as 2261, Finishing Plants, Cotton, and 2211, Weaving Mills, Cotton, while the remainder was shipped

by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963. The coverage ratio for industry 2262 only was 58 percent in 1967, compared with 60 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2261, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-22S, Broadwoven Fabrics Finished.

They differ from the data shown in this report for 1967 because the census figures show shipment data whereas the MA-22S report is based on production.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2261.--FINISHING PLANTS, COTTON												
United States, total.....	216	136	35.7	193.0	30.0	64.3	148.6	313.8	579.5	893.9	27.7	42.1	332.3
New England.....	37	27	4.2	25.1	3.4	7.5	18.5	35.6	58.4	94.6	1.2	7.2	50.3
Massachusetts.....	15	11	2.3	14.6	1.9	4.1	10.5	20.1	43.6	63.8	0.7	3.5	24.0
Rhode Island.....	15	9	1.2	6.2	1.0	2.3	5.2	9.4	6.3	15.7	0.2	2.9	20.2
Middle Atlantic.....	88	43	3.6	22.7	3.1	6.8	17.7	35.7	35.2	71.5	2.3	4.8	38.7
New York.....	44	19	1.8	10.7	1.5	3.3	8.5	15.7	20.6	36.9	1.2	1.8	16.7
New Jersey.....	25	16	1.2	7.8	1.0	2.2	6.0	13.2	9.1	22.2	0.6	2.1	15.8
Pennsylvania.....	19	8	0.7	4.2	0.6	1.3	3.2	6.8	5.6	12.3	0.5	0.9	6.2
North Central.....	18	6	0.4	2.5	0.3	0.7	1.9	4.4	7.3	11.7	0.2	0.4	3.7
South.....	67	59	27.4	141.9	23.1	49.1	109.9	236.6	477.8	713.9	23.9	29.6	238.1
South Atlantic.....	54	49	24.1	125.4	20.2	42.8	97.0	211.4	402.5	613.7	21.7	(D)	(D)
North Carolina....	18	18	5.3	28.0	4.3	9.0	20.4	46.8	32.0	78.7	6.0	5.1	42.8
South Carolina....	17	17	14.7	76.5	12.5	26.7	61.2	132.1	351.0	483.7	13.7	17.7	143.5
Georgia.....	10	5	2.3	10.4	2.1	4.4	8.8	17.9	9.7	27.5	1.4	(D)	(D)
West.....	6	1	0.1	0.8	0.1	0.2	0.5	1.4	0.7	2.1	(Z)	0.1	1.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967 total shipments including interplant transfers	
		Quantity (million fin. lin. yds.)	Value (million dollars)
2261- -- 22117 --	FINISHED COTTON BROADWOVEN FABRICS (INCLUDING COMMISSION RECEIPTS FOR JOB FINISHING), TOTAL <sup>4</sup> .	(X)	<sup>1</sup> 1,084.9
22117 -- 22617 --	Finished cotton broadwoven fabrics (excluding commission finishing), total.....	<sup>2</sup> 1,749.5	685.4
22117 --	Finished in weaving mills, total.....	<sup>2</sup> 845.0	375.7
22617 --	Finished in other industries, total.....	<sup>2</sup> 904.5	309.7
22117 11 22617 11	Bleached and white finished.....	752.4	204.8
22117 31 22617 31	Plain dyed and finished.....	796.3	382.5
22117 51 22617 51	Printed and finished.....	200.8	85.2
22117 61 22617 61	Other finished cotton fabrics not bleached, dyed, or printed at the same establishment (flameproofed, mildew-proofed, mercerized, embossed, etc.).....	(NA)	12.2
22117 00 22617 00	Finished cotton broadwoven fabrics, n.s.k.....	(X)	0.7
22619 --	Commission finishing of cotton broadwoven fabrics, total <sup>4</sup> .....	<sup>2</sup> 3,738.1	<sup>1</sup> 396.8
22619 11	Bleached and white finished.....	1,443.9	86.7
22619 31	Plain dyed and finished.....	1,158.5	132.5
22619 51	Printed and finished.....	1,135.7	151.2
22619 71	Other finished cotton fabrics not bleached, dyed, or printed at the same establishment (flameproofed, mildew-proofed, mercerized, embossed, etc.).....	(NA)	<sup>2</sup> 13.2
22619 00	Commission finishing of cotton broadwoven fabrics, n.s.k.....	(X)	13.2
22610 00	Finishing receipts, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	<sup>3</sup> 2.4
22610 02	Finishing receipts, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	<sup>3</sup> 0.3

Product code	Product	1963					
		Total production (million fin. lin. yds.)	Total shipments including interplant transfers		Transfers to other plants of the same company		Produced and consumed in same estab- lishment (million fin. lin. yds.)
			Quantity (million fin. lin. yds.)	Value (\$1,000)	Quantity (million fin. lin. yds.)	Value (\$1,000)	
2261- -- 22117 --	FINISHED COTTON BROADWOVEN FABRICS (INCLUDING COMMISSION RECEIPTS FOR JOB FINISHING), TOTAL...	(X)	(X)	<sup>1</sup> 1,113.2	(X)	(X)	(X)
22117 -- 22617 --	Finished cotton broadwoven fabrics (excluding commis- sion finishing), total.....	<sup>2</sup> 3,340.1	2,074.3	724.1	(D)	(D)	1,267.2
22117 --	Finished in weaving mills, total.....	<sup>2</sup> 1,677.6	954.9	411.7	(D)	(D)	716.8
22617 --	Finished in other industries, total.....	<sup>2</sup> 1,662.5	1,119.4	312.4	(D)	(D)	550.4
22117 11 22617 11	Bleached and white finished.....	1,959.2	931.6	212.9	(D)	(D)	991.1
22117 31 22617 31	Plain dyed and finished.....	1,087.1	883.3	401.8	(D)	(D)	236.9
22117 51 22617 51	Printed and finished.....	293.8	259.4	86.1	(D)	(D)	39.3
22117 61 22617 61	Other finished cotton fabrics not bleached, dyed, or printed at the same establishment (flame proofed, mildew-proofed, mercerized, embossed, etc.).....	(NA)	(NA)	22.4	(NA)	(D)	(NA)
22117 00 22617 00	Finished cotton broadwoven fabrics, n.s.k.....	(X)	(X)	0.9	(X)	(X)	(X)
22619 --	Commission finishing of cotton broadwoven fabrics, total.....	<sup>2</sup> 4,212.1	<sup>2</sup> 4,194.2	<sup>1</sup> 371.8	285.7	13.2	(D)
22619 11	Bleached and white finished.....	1,286.3	1,272.9	69.4	161.5	4.8	(D)
22619 31	Plain dyed and finished.....	1,552.7	1,547.3	142.2	108.0	7.3	(D)
22619 51	Printed and finished.....	1,373.2	1,373.9	148.9	16.2	1.0	-
22619 71	Other finished cotton fabrics not bleached, dyed, or printed at the same establishment (flameproofed, mildew-proofed, mercerized, embossed, etc.).....	65.5	65.3	6.8	-	-	(NA)
22619 00	Commission finishing of cotton broadwoven fabrics, n.s.k.....	(X)	(X)	4.5	(X)	(X)	-
22610 00	Finishing receipts, n.s.k.....	(X)	(X)	<sup>3</sup> 17.3	(X)	(X)	-

See footnotes on next page.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

Footnotes for Table 3.--Industry 2261

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures.

<sup>e</sup>10 to 30 percent of this item is estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable

<sup>1</sup>For fabrics finished on commission, the commission receipts are shown in the value of shipments column.

<sup>2</sup>Data exclude "other finished fabrics" and "finished fabrics not specified by kind."

<sup>3</sup>Includes value of finished fabrics, not specified by kind, or commission receipts, not specified by kind.

<sup>4</sup>Production data for finished broadwoven goods with a detailed breakdown by type of fabric and finish are published annually in Current Industrial Reports Series MA-22S, "Broadwoven Fabric Finished."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2261.--FINISHING PLANTS, COTTON					
	Materials, containers, supplies, etc., total.....		(X)	539.3	(X)	494.6
220211	Purchased broadwoven fabrics (piece goods) including transfers from other plants of the company.....	Million lin. yds.	1,199.5	322.9	1,334.2	316.3
281531	Dyes, lakes, and toners.....		(X)	85.5	(X)	86.2
970099	All other materials, containers, and supplies, etc.....		(X)	86.7	(X)	69.0
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....		(X)	44.2	(X)	23.2

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2261, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

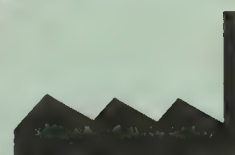
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Finishing plants, synthetics

**preliminary  
report**

SIC Code 2262

The Finishers of Broadwoven Fabrics of Manmade Fiber and Silk Industry includes establishments primarily engaged in finishing purchased manmade fiber and silk broadwoven fabrics or finishing such fabrics on a commission basis. These finishing operations include bleaching, dyeing, printing (roller, screen, flock, plisse); and other mechanical finishing such as preshrinking, calendering and napping. Establishments primarily engaged in finishing wool broadwoven fabrics are classified in industry 2231; knit goods in Group 225; and those coating or impregnating fabrics in industry 2295.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as finishing plants, synthetics, amounted to \$549.1 million, an increase of 70 percent compared with 1963. Value added by manufacture at \$270.6 million in 1967 was 53 percent more than value added in 1963. Average employment in the industry showed an increase of 31 percent from 1963 to a total of 25.6 thousand employees in 1967.

Of the \$549.1 million total value of shipments and other receipts of establishments classified as finishing plants, synthetics, \$30.4 million were products primary to other industries; and \$26.7 million were receipts for miscellaneous activities. The industry shipments or primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2262.--FINISHING PLANTS, SYNTHETICS													
1967 Census....	232	166	25.6	158.7	21.3	47.6	119.3	270.6	280.7	549.1	20.7	49.8	95	55
1966 ASM <sup>1</sup> .....	(NA)	(NA)	24.9	144.6	20.5	45.8	108.1	250.4	304.2	550.3	32.8	45.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	23.8	135.1	19.4	44.9	101.8	221.2	235.9	458.0	12.7	37.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	20.4	117.6	17.2	38.4	90.6	194.1	145.9	338.5	10.2	33.2	(NA)	(NA)
1963 Census....	205	138	19.5	106.0	16.2	36.5	81.4	176.8	151.1	323.7	13.9	31.0	91	46
1962 ASM <sup>1</sup> .....	(NA)	(NA)	17.9	89.2	15.1	33.1	68.0	149.2	151.1	300.5	8.5	13.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	16.5	79.9	13.8	29.9	61.1	135.0	135.2	269.4	6.5	11.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	16.4	78.9	13.7	29.6	60.5	138.3	124.1	262.8	4.4	10.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	16.6	79.6	13.9	30.5	61.0	133.5	108.8	242.0	2.6	10.4	(NA)	(NA)
1958 Census <sup>2</sup> ....	197	132	16.2	74.3	13.6	29.3	57.6	114.8	95.3	210.6	3.6	10.5	93	54

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

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**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
**Rocco C. Siciliano**, Under Secretary  
**Harold C. Passer**, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

percent, called the specialization ratio for the industry, was 91 percent in 1963.

The total value of finished manmade fiber and silk broadwoven fabrics shipped by all producers in 1967 was \$993.7 million of which \$817.7 million, or 82 percent, were shipped by plants classified as 2262, Finishing Plants, Synthetics, and 2221, Weaving Mills, Synthetics, while the remainder was shipped by plants classified in other industries. This percent, called the cover-

age ratio, was 77 percent in 1963. The coverage ratio for industry 2262 only was 55 percent in 1967, compared with 46 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2262, the Census Bureau collects current production statistics on selected products. These data appear in the Current Industrial Reports series:

MA-22S, Broadwoven Fabrics Finished.

Information on gray fabric production are shown in Current Industrial Reports Series M22T.1, Cotton Broadwoven Goods and M22T.2, Manmade Fiber Broadwoven Goods.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms.")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2262.--FINISHING PLANTS, SYNTHETICS													
United States, total.....	232	166	25.6	158.7	21.3	47.6	119.3	270.6	280.7	549.1	20.7	19.5	176.8
Rhode Island.....	9	8	1.8	11.4	1.5	3.3	8.4	17.5	10.6	28.0	0.9	(D)	(D)
Connecticut.....	13	10	1.6	10.3	1.3	3.1	7.6	19.2	7.8	27.3	0.8	1.4	10.5
Middle Atlantic.....	133	88	8.6	62.2	7.5	16.9	50.5	97.8	56.5	153.9	3.4	8.6	87.8
New York.....	57	27	2.0	13.1	1.7	3.6	10.4	21.1	13.4	34.4	0.8	1.8	16.2
New Jersey.....	68	55	6.1	45.7	5.3	12.2	37.4	70.3	39.8	110.2	2.0	6.1	63.1
Pennsylvania.....	8	6	0.6	3.4	0.5	1.2	2.7	6.4	3.3	9.3	0.6	0.7	8.6
East North Central...	4	2	0.1	0.7	0.1	0.2	0.6	1.1	0.5	1.6	(Z)	(D)	(D)
South.....	46	39	10.6	57.7	8.4	18.9	40.5	105.8	184.8	288.7	13.7	6.7	55.0
North Carolina.....	24	21	4.5	23.6	3.6	7.8	16.7	46.7	108.1	154.6	5.9	3.2	23.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of Shipments")

Product code	Product	1967		Total production (million fin. lin. yds.)	1963		Produced and consumed in same establishment (million fin. lin. yds.)
		Total shipments including inter-plant transfers			Total shipments including inter-plant transfers		
		Quantity (million fin. lin. yds.)	Value (million dollars)		Quantity (million fin. lin. yds.)	Value (million dollars)	
2262- -- 22218 --	FINISHED MANMADE FIBER AND SILK BROADWOVEN FABRICS (INCLUDING COMMISSION RECEIPTS FOR JOB FINISHING), TOTAL.....	(X)	<sup>1</sup> 993.7	(X)	(X)	<sup>1</sup> 617.0	(X)
22218 -- 22628 --	Finished manmade fiber and silk broadwoven fabrics (excluding commission finishing), total.....	<sup>2</sup> 695.2	559.7	<sup>2</sup> 344.1	<sup>2</sup> 303.6	336.9	47.2
22218 -- 22628 --	Finished in weaving mills.....	<sup>2</sup> 404.2	414.7	<sup>2</sup> 238.1	<sup>2</sup> 207.7	270.4	(D)
	Finished in other industries.....	<sup>2</sup> 291.0	145.0	<sup>2</sup> 106.0	<sup>2</sup> 95.9	66.5	(D)
22218 10 22628 20	Bleached and white finished:.....	239.0	123.2	112.3	105.2	61.7	(D)
22218 30 22628 30	Plain dyed and finished.....	435.6	392.6	206.5	175.4	228.6	22.3
22218 50 22628 50	Printed and finished.....	20.6	20.2	25.2	23.1	27.3	(D)
22218 61 22628 61	Other finished manmade fiber fabrics not bleached, dyed, or printed at the same establishment (flameproofed, mildew-proofed, mercerized, embossed, etc.).....	(NA)	22.2	(NA)	(NA)	18.9	-
22628 00	Finished manmade fiber and silk fabrics (excluding commission finishing), n.s.k.....	(X)	1.5	(X)	(X)	0.4	-
22629 --	Job or commission finishing of manmade fiber and silk broadwoven goods, total <sup>3</sup> .....	<sup>2</sup> 3,056.7	<sup>1</sup> 420.2	2,396.5	<sup>2</sup> 2,372.5	<sup>1</sup> 276.9	-
22629 20	Bleached and white finished.....	627.0	56.3	369.2	367.3	28.3	-
22629 30	Plain dyed and finished.....	1,866.8	228.4	1,571.2	1,548.2	171.0	-
22629 50	Printed and finished.....	562.9	97.9	456.1	456.9	70.1	-
22629 61	Other commission finished manmade fiber fabrics not bleached, dyed, or printed at the same establishment (flameproofed, mildewproofed, mercerized, embossed, etc.).....	114.0	11.8	15.7	15.7	1.7	-
22629 00	Commission finishing of manmade fiber and silk broadwoven fabrics, n.s.k.....	(X)	25.8	(X)	(X)	5.6	-
22620 00	Finished manmade fiber and silk broadwoven fabrics, including commission receipts, n.s.k. (For companies with 10 or more employees. See Note.).	(X)	<sup>4</sup> 13.6	(X)	(X)	<sup>4</sup> 3.3	-
22620 02	Finished manmade fiber and silk broadwoven fabrics, including commission receipts, n.s.k. (For companies with less than 10 employees. See Note.).	(X)	0.2				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For fabrics finished on commission, the commission receipts are shown in the value of shipments column.

<sup>2</sup>Data exclude "other finished fabrics" and "finished fabrics not specified by kind."

<sup>3</sup>For 1963, 382.9 million finished linear yards were finished for the converting or sales department of the same company. For 1967, these data are not available due to an inadequate response rate.

<sup>4</sup>Includes value of finished fabrics, not specified by kind, or commission receipts, not specified by kind.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2262.--FINISHING PLANTS, SYNTHETICS				
	Materials, containers, supplies, etc., total.....	(X)	253.1	(X)	133.5
220211	Purchased broadwoven fabrics (piece goods) including transfers from other plants of the company.....	149.5	68.0	60.3	32.3
281531	Dyes, lakes, and toners.....	(X)	67.9	(X)	56.5
970099	All other materials, containers, supplies, etc.....	(X)	62.4	(X)	35.1
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	(X)	54.8	(X)	9.6

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2262, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

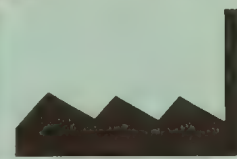
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**Bureau of the Census**  
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-22C-3

## INDUSTRY SERIES

**preliminary  
report**

### Finishing plants, n.e.c.

SIC Code 2269

The Finishers of Textiles, Not Elsewhere Classified, Industry includes establishments primarily engaged in dyeing and finishing textiles, not elsewhere classified, such as bleaching, dyeing, printing and finishing of raw stock, yarn, braided goods, and narrow fabrics, except wool and knit fabrics. These establishments perform finishing operations on purchased textiles or on a commission basis.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as finishing plants, n.e.c., amounted to

\$290.2 million, an increase of 40 percent compared with 1963. Value added by manufacture at \$124.6 million in 1967 was 70 percent more than value added in 1963. Average employment in the industry showed an increase of 34 percent from 1963 to a total of 12.3 thousand employees in 1967.

Of the \$290.2 million total value of shipments and other receipts of establishments classified as finishing plants, n.e.c., \$11.1 million were products primary to other industries; and \$78.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)	
	INDUSTRY 2269.--FINISHING PLANTS, N.E.C.													
1967 Census....	190	103	12.3	63.1	10.5	21.5	47.6	124.6	167.4	290.2	8.3	25.0	95	61
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.6	56.1	10.1	20.7	41.9	101.1	172.4	273.0	7.3	21.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.9	50.9	9.4	19.6	38.8	92.9	162.1	254.2	6.7	21.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	10.2	45.6	8.8	17.8	33.5	83.9	133.6	218.4	14.6	19.4	(NA)	(NA)
1963 Census....	178	85	9.2	40.4	7.9	15.7	30.0	73.2	134.2	206.9	4.7	19.2	89	64
1962 ASM <sup>1</sup> .....	(NA)	(NA)	9.5	41.3	8.3	15.5	29.6	82.6	127.9	208.4	3.5	18.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	9.1	36.0	7.8	15.0	25.6	70.7	115.3	186.4	3.6	16.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	9.7	38.0	8.4	16.2	27.6	69.6	116.3	186.0	2.9	17.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	8.4	31.6	7.5	14.7	24.5	65.9	113.5	178.2	1.5	15.6	(NA)	(NA)
1958 Census <sup>2</sup> ...	155	79	7.8	28.8	6.8	13.7	22.5	52.0	105.7	158.0	2.1	14.6	95	73

(NA) Not available. n.e.c. Not elsewhere classified.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of finished textile products, n.e.c., shipped by all producers in 1967 was \$328.0 million of which \$200.9 million, or 61 percent, were shipped by plants classified in industry 2269, Finishing Plants, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 64 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Forms.")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2269.--FINISHING PLANTS, N.E.C.												
United States, total.....	190	103	12.3	63.1	10.5	21.5	47.6	124.6	167.4	290.2	8.3	9.2	73.2
Rhode Island.....	7	5	0.6	2.7	0.5	1.0	2.3	3.8	4.6	8.2	0.1	(D)	(D)
Middle Atlantic.....	101	38	2.7	15.8	2.4	4.8	12.4	26.5	33.2	59.3	1.5	2.4	19.5
New York.....	42	13	0.7	4.2	0.6	1.3	3.3	8.0	5.0	12.9	0.5	0.6	4.9
New Jersey.....	37	14	1.1	6.7	1.0	2.1	5.4	10.5	12.5	23.0	0.4	0.9	6.9
Pennsylvania.....	22	11	0.9	4.9	0.7	1.4	3.6	8.0	15.7	23.4	0.6	1.0	7.7
North Central.....	7	4	1.5	9.1	1.1	2.4	5.6	15.2	7.2	22.6	0.6	(D)	(D)
South.....	57	45	6.0	26.9	5.3	10.9	21.6	57.1	106.6	162.2	4.5	4.1	30.9
North Carolina.....	34	28	2.9	12.3	2.7	5.2	10.1	27.1	60.9	87.4	2.2	2.1	14.9
Georgia.....	5	5	0.8	4.1	0.7	1.5	2.9	6.8	4.7	11.4	(D)	0.2	2.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (Million pounds)	Value (Million dollars)	Quantity (Million pounds)	Value (Million dollars)
22690 -- 2281 pt.	FINISHED YARN, RAW STOCK, AND NARROW FABRICS EXCEPT KNIT AND WOOL (NOT SPUN, THROWN, WOVEN, OR BRAIDED IN SAME ESTABLISHMENT).....	(X)	328.0	(X)	216.7
22812 71 22690 12	Yarns bleached: Finished in plants with spinning facilities..... Finished from purchased yarns.....	24.9	21.2	22.6	21.0
22811 87 22690 21	Yarns dyed: Carded cotton: Finished in plants with spinning facilities..... Finished from purchased yarns.....	29.0 29.7	18.0 24.1	13.9 21.1	10.5 18.7
22812 51 22690 23	Combed cotton: Finished in plants with spinning facilities..... Finished from purchased yarns.....	19.1 20.3	17.0 21.6	26.6	28.9
22813 43 22690 26	Rayon and/or acetate: Finished in plants with spinning facilities..... Finished from purchased yarns <sup>1</sup> .....	31.1	18.0	9.4 10.2	5.0 14.3
22814 43 22690 29	Spun noncellulosic fiber and silk yarns (nylon, acrylic, polyester, etc.): Finished in plants with spinning facilities..... Finished from purchased yarns <sup>1</sup> .....	67.0 26.6	78.9 27.2	18.6	23.7
22812 61 22690 32	Mercerized cotton yarns: Mercerized in plants with spinning facilities..... Mercerized from purchased yarns.....	30.0	42.3	31.7	42.6
22690 42 22690 61	Raw stock, bleached or dyed, except wool..... Printed plastic film.....	( <sup>2</sup> )	( <sup>2</sup> )	10.8 (NA)	10.9 5.5
22690 71 22690 00	Finished, braided, or woven narrow fabrics..... Textile finishing, n.e.c., n.s.k. (For companies with 10 or more employees, See Note).....	(X)	15.5	(X)	14.6
22690 02	Textile finishing, n.e.c., n.s.k. (For companies with less than 10 employees. See Note).....	(X)	240.7 3.5	(X)	21.1

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1963, spun noncellulosic yarns finished from purchased yarns are included with code 22690 26.

<sup>2</sup>For 1967, product codes 22690 42 and 22690 61 are included with product code 22690 00.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2269.--FINISHING PLANTS, N.E.C.					
	MATERIALS, CONTAINERS, and SUPPLIES, TOTAL.....		(X)	147.7	(X)	126.6
228015	Purchased yarn, all fibers, including transfers from other plants of the company.....	Million lbs.....	102.1	90.7	95.5	82.5
281531	Dyes, lakes, and toners.....		(X)	21.1	(X)	11.2
970099	All other materials, containers, and supplies consumed.....		(X)	22.1	(X)	21.9
976000	Materials, containers, supplies, n.s.k.....		(X)	13.8	(X)	11.1

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2269, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

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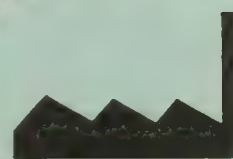
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES

MC67(P)-22D-1



INDUSTRY SERIES

**preliminary  
report**

## Woven carpets and rugs

SIC Code 2271

The Woven Carpets and Rugs Industry includes establishments primarily engaged in weaving carpets and rugs from any textile yarn. Important products of this industry include Axminster, Wilton, velvet, chenille, and similar woven carpets and rugs.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Woven Carpets and Rugs Industry amounted to \$232.5 million, a decrease of 26

percent compared with 1963. Value added by manufacture at \$95.9 million in 1967 was 20 percent less than value added in 1963. Average employment in the industry showed a decrease of 35 percent from 1963 to a total of 8.7 thousand employees in 1967.

Of the \$232.5 million total value of shipments and other receipts of establishments classified as the Woven Carpets and Rugs Industry, \$35.0 million were products primary to other industries; and \$11.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 80 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 77 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2271.--WOVEN CARPETS AND RUGS													
1967 Census....	63	26	8.7	47.4	7.4	15.4	35.9	95.9	132.2	232.5	6.2	59.0	80	78
1966 ASM <sup>1</sup> .....	(NA)	(NA)	9.7	50.6	8.1	17.1	37.7	115.7	172.9	283.8	5.6	72.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.5	53.7	8.7	18.5	39.9	107.0	177.5	283.9	4.7	70.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	12.1	59.3	10.1	21.3	43.9	117.6	187.5	306.8	7.6	79.7	(NA)	(NA)
1963 Census....	64	31	13.4	63.0	11.0	23.4	47.0	120.0	193.0	312.5	4.2	84.8	77	92
1962 ASM <sup>1</sup> .....	(NA)	(NA)	14.5	65.0	11.6	24.1	47.9	129.8	196.5	328.3	4.7	86.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	16.4	69.7	13.3	26.9	51.4	141.1	192.5	335.4	7.7	96.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	18.4	76.3	15.1	30.0	58.2	158.7	218.4	377.3	7.0	105.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	19.7	84.9	16.0	34.3	64.9	189.8	226.9	409.6	6.1	107.8	(NA)	(NA)
1958 Census <sup>2</sup> ....	69	47	18.2	74.4	15.0	30.3	55.1	128.4	196.2	335.5	5.9	97.8	87	97

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director

The total value of woven carpets and rugs shipped by all producers in 1967 was \$222.3 million of which \$172.0 million, or 78 percent, were shipped by plants classified in industry 2271, Woven Carpets and Rugs, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 92 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2271, the Census Bureau collects quarterly statistics on selected products. These data appear in the Current Industrial Reports series:

MQ-22Q, Rugs, Carpets, and Carpeting. The 1967 data as previously published for this survey are shown in table 3 together with the comparable totals reported in the census of manufactures. The difference in the value of shipments data is due to reporting differences for individual plants furnishing data in both surveys.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2271.-WOVEN CARPETS AND RUGS												
United States, total.....	63	26	8.7	47.4	7.4	15.4	35.9	95.9	132.2	232.5	6.2	13.4	120.0
New England.....	12	7	1.6	9.2	1.3	2.6	6.6	15.8	19.8	35.6	0.5	(D)	(D)
Middle Atlantic.....	12	8	1.8	10.0	1.3	2.7	6.7	9.6	14.6	25.7	0.2	(D)	(D)
Pennsylvania.....	■	5	0.6	3.4	0.5	1.0	2.5	3.9	6.5	11.0	(D)	3.1	24.1
South.....	30	10	5.2	27.9	4.8	9.9	22.4	69.7	96.5	169.2	5.5	5.8	70.2

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (million sq. yds.)	Value (million dollars)	Quantity (million sq. yds.)	Value (million dollars)
2271- --	WOVEN CARPETS AND RUGS: <sup>1</sup>				
22710 00	Total as reported in the census of manufactures.....	35.8	222.3	43.6	250.8
	Total as reported on Census Form MA-22Q.....	35.7	228.1	42.5	246.3
22710 01	Axminster.....	4.7	23.4	9.4	38.9
22710 03	Wilton.....	6.6	51.1	10.0	66.8
22710 05	Velvet.....	19.3	126.7	21.0	128.2
22710 06	Cushion-backed (includes upholstery loom carpeting).....	5.1	26.9	2.1	12.4
22710 09	Other woven (chenille, etc.).....				

<sup>1</sup>See text regarding the comparability of the data collected in the census of manufactures and current annual survey.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

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This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

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## Appendix

### EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the month specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

## Tufted carpets and rugs

SIC Code 2272

preliminary  
report

The Tufted Carpets and Rugs Industry includes establishments primarily engaged in tufting carpets and rugs from any textile fiber. Important products of this industry include tufted carpets, rugs, scatter rugs, and bathmats and bathmat sets except terry woven. Finishers of these products also are included in this industry.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Tufted Carpets and Rugs Industry

amounted to \$1,453.0 million, an increase of 81 percent compared with 1963. Value added by manufacture at \$453.4 million in 1967 was 75 percent more than value added in 1963. Average employment in the industry showed an increase of 62 percent from 1963 to a total of 32.3 thousand employees in 1967.

Of the \$1,453.0 million total value of shipments and other receipts of establishments classified as tufted carpet and rugs manufacturers, \$58.8 million were products primary to other industries; and \$70.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 96 percent of the total manufactured product

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total <sup>3</sup>	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2272.—TUFTED CARPETS AND RUGS													
1967 Census....	245	154	32.3	168.3	26.5	57.3	119.9	453.4	1,004.9	1,453.0	33.7	228.5	96	99
1966 ASM <sup>1</sup> .....	(NA)	(NA)	28.2	132.8	23.5	51.5	98.9	398.2	825.4	1,206.4	26.9	205.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	26.4	121.8	22.3	50.2	92.1	342.5	800.7	1,121.3	27.0	188.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	24.9	104.1	20.2	44.3	77.8	325.4	732.7	1,043.3	*26.7	146.1	(NA)	(NA)
1963 Census....	181	121	19.9	80.5	17.2	36.4	61.3	259.3	551.8	801.8	11.5	116.3	96	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	17.5	70.7	14.7	32.1	51.6	248.7	558.8	791.9	11.9	105.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	14.9	55.1	12.3	26.1	39.4	182.9	375.5	549.9	10.2	76.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	46.6	11.3	23.5	34.3	147.1	297.9	436.9	6.9	59.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	12.5	41.5	10.7	21.5	30.8	125.5	247.4	364.4	6.6	52.7	(NA)	(NA)
1958 Census <sup>2</sup> ....	92	72	11.5	36.3	9.9	19.5	26.9	108.8	209.2	317.6	8.0	45.9	94	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments (see section of text on scope and coverage for further explanation).

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

The total value of tufted carpets and rugs shipped by all producers in 1967 was \$1,333.6 million of which \$1,323.8 million, or 99 percent, were shipped by plants classified in industry 2272, Tufted Carpets and Rugs, while the remainder was shipped by plants classified in other in-

dustries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2272, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M22L, Tufted Textile Products. The 1967 data as previously published for this survey are shown in table 3 together with the comparable totals reported in the census of manufactures.

In view of the differences between these figures, a review was undertaken of the data reported in each survey. Most of the differences is due to the omission of several plants from the annual survey. These plants are being added to the MQ-22Q, Rugs, Carpets, and Carpeting, and revised detailed data for 1967 will be included in the 1968 release for carpets and rugs. The remaining part of the discrepancy in the data is due to reporting differences for individual plants furnishing data in both surveys. These are being reviewed with the companies and any revisions will be made in the final 1967 Census of Manufactures report or in the Carpet and Rug Annual Report for 1968.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
INDUSTRY 2272.—TUFTED CARPETS AND RUGS													
United States, total.....	245	154	32.3	168.3	26.5	57.3	119.9	453.4	1,004.9	1,453.0	33.7	19.9	259.3
Northeast.....	22	15	5.7	30.0	4.3	9.5	21.5	70.3	139.4	207.7	3.5	(D)	(D)
Pennsylvania.....	8	8	4.0	22.8	3.1	6.5	15.9	55.0	100.5	154.3	(D)	1.5	27.1
South.....	178	123	24.7	126.6	20.8	44.7	90.7	349.3	807.2	1,152.3	28.5	16.0	203.2
South Atlantic.....	153	107	21.7	112.4	18.2	39.4	80.8	313.3	727.9	1,039.5	22.9	(D)	(D)
Georgia.....	131	93	17.9	94.6	15.0	32.5	67.2	269.8	599.3	868.8	18.5	12.3	159.3
Alabama.....	7	5	0.6	2.6	0.6	1.0	2.0	3.4	9.2	12.7	(D)	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

<sup>1</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (million sq. yds.)	Value (million dollars)	Quantity (million sq. yds.)	Value (million dollars)
2272- --	TUFTED CARPETS AND RUGS:				
22720 00	Total as reported in the census of manufactures.....	459.7	1,333.6	264.7	779.1
	Total as reported in Census Form M22L <sup>1</sup> .....	420.7	1,263.7	263.0	779.5
22720 01	Bathmats, throw rugs, and others 4' x 6' or smaller.....	62.3	132.0	52.4	98.2
22720 03	Roll goods and rugs larger than 4' x 6' except automobile and aircraft carpeting.....	318.2	1,046.9	176.4	615.6
22720 05	Automobile and aircraft carpeting.....	40.2	84.8	34.2	65.6

<sup>1</sup>See text regarding the comparability of the data collected in census of manufactures and current annual survey.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2272, these small establishments accounted for approximately percent of payrolls and percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

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"Value added" avoids the duplication in the value of shipments figure which results from

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# CURRENT INDUSTRIAL REPORTS

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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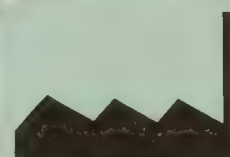
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-22D-3

## INDUSTRY SERIES

### Carpets and rugs, n.e.c.

SIC Code 2279

preliminary  
report

The Carpets and Rugs, N.E.C., Industry includes establishments primarily engaged in manufacturing rugs, carpets, art squares, floor mattings, doormats and mattings from twisted paper, grasses, reeds, coir, sisal, jute or rags. Establishments primarily engaged in manufacturing hard surface floor coverings, except rubber and cork, are classified in industry 3996.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Carpets and Rugs, N.E.C., Industry

amounted to \$90.2 million, an increase of 205 percent compared with 1963. Value added by manufacture at \$45.4 million in 1967 was 191 percent more than value added in 1963. Average employment in the industry showed an increase of 25 percent from 1963 to a total of 3.0 thousand employees in 1967.

Of the \$90.2 million total value of shipments and other receipts of establishments classified as carpets and rugs, n.e.c., \$10.6 million were products primary to other industries; and \$10.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							

	INDUSTRY 2279.—CARPETS AND RUGS, N.E.C.													
1967 Census....	79	31	3.0	14.9	2.6	5.1	11.2	45.4	47.0	90.2	5.6	9.0	87	74
1966 ASM <sup>1</sup> .....	(NA)	(NA)	3.4	15.9	3.0	6.0	12.2	30.6	44.6	75.4	2.3	16.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	3.0	11.9	2.6	4.9	8.6	21.2	24.2	45.0	1.3	5.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	2.7	10.2	2.4	4.5	7.6	18.7	17.0	35.4	0.9	5.0	(NA)	(NA)
1963 Census....	104	35	2.4	8.9	2.1	4.1	6.8	15.6	14.3	29.6	0.5	3.9	89	46
1962 ASM <sup>1</sup> .....	(NA)	(NA)	2.8	9.5	2.4	4.9	6.7	16.1	18.4	35.2	(NA)	5.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	2.9	9.8	2.5	4.9	6.7	16.0	23.5	39.8	(NA)	7.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	3.6	11.4	3.1	5.9	8.4	18.0	25.5	43.5	(NA)	8.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	3.5	11.4	3.0	6.1	8.6	21.0	25.6	46.6	(NA)	7.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	121	53	4.0	12.6	3.5	6.8	10.1	23.2	30.7	54.5	0.7	9.6	78	78

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 8, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1. of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

The total value of carpets and rugs, n.e.c., shipped by all producers in 1967 was \$93.4 million of which \$69.2 million, or 74 percent, were shipped by plants classified in industry 2279, Carpets and Rugs, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 46 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2279, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Quarterly Reports series:

MQ-22Q, Rugs, Carpets, and Carpeting.

The 1967 data as previously published in this survey are shown in table 3 together with the comparable totals reported in the census of manufactures. The differences in the two sets of data are due to the omission of a few plants from the quarterly survey. These plants will be added to the MQ-22Q survey and corrected detailed data will be shown in the annual summary for 1968.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2279.—CARPETS AND RUGS, N.E.C.													
United States, total.....	79	31	3.0	16.3	2.6	5.1	11.2	45.4	47.1	90.2	5.6	2.4	15.6
Northeast.....	39	14	1.1	5.0	1.0	1.8	4.1	15.4	14.0	29.5	3.9	1.0	6.0
Pennsylvania.....	13	3	0.2	0.7	0.2	0.3	0.5	1.5	1.2	2.7	(D)	0.2	1.6
South.....	22	7	0.6	3.7	4.0	1.0	1.5	3.4	2.8	6.1	0.1	0.6	3.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (million sq. yds.)	Value (million dollars)	Quantity (million sq. yds.)	Value (million dollars)
2279- --	CARPETS AND RUGS, N.E.C. <sup>1</sup>				
22790 00	Total as reported in Census of Manufactures.....	31.5	93.4	14.8	51.8
	Total as reported on Census Annual Form MA-22Q.....	26.2	75.3	14.0	48.6
22790 10	Knitted.....	4.2	19.4	6.5	28.9
22790 41	Braided.....	2.8	8.9	4.3	13.3
22790 73	Hooked.....	(Z)	(Z)	(Z)	(Z)
22790 74	Needle punched.....	16.6	42.6	3.2	6.0
22790 77	Other textile rugs (paper yarn, coconut fiber, etc.).....	2.6	4.2		

n.e.c. Not elsewhere classified. (Z) Less than 0.1 when rounded.

<sup>1</sup>See text regarding the comparability of the data collected in census of manufactures and current annual survey.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2279, these small establishments accounted for approximately 2 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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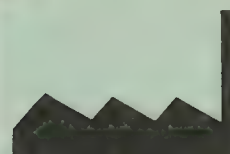
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**OFFICIAL BUSINESS**



# 1967 CENSUS OF MANUFACTURES



MC67(P)-22E-1

## INDUSTRY SERIES

### Yarn mills, except wool

SIC Code 2281

preliminary  
report

Yarn Spinning Mills: Cotton, Manmade Fibers and Silk include establishments primarily engaged in spinning yarn wholly or chiefly by weight of cotton, manmade staple fibers, or silk staple. Establishments primarily engaged in dyeing or finishing purchased yarns or finishing yarns on a commission basis are classified in industry 2269.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as yarn mills, except wool, amounted to \$1,403.1 million, an increase of 50 percent

compared with 1963. Value added by manufacture at \$552.2 million in 1967 was 52 percent more than value added in 1963. Average employment in the industry showed an increase of 19 percent from 1963 to a total of 73.6 thousand employees in 1967.

Of the \$1,403.1 million total value of shipments and other receipts of establishments classified as yarn mills, except wool, \$87.6 million were products primary to other industries; and \$32.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2881.--YARN MILLS, EXCEPT WOOL													
1967 Census....	373	323	73.6	306.6	69.4	140.3	271.8	552.2	854.0	1,403.1	89.0	175.2	94	383
1966 ASM <sup>1</sup> .....	(NA)	(NA)	72.6	307.0	68.6	146.3	272.5	592.0	895.0	1,478.5	99.3	164.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	68.6	275.3	64.2	140.0	245.9	531.7	852.9	1,378.7	64.9	157.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	64.2	232.3	59.7	125.8	206.6	405.7	753.7	1,158.6	48.8	131.4	(NA)	(NA)
1963 Census....	317	284	61.6	208.1	58.2	117.9	184.8	363.2	708.0	1,067.0	34.7	137.1	96	83
1962 ASM <sup>1</sup> .....	(NA)	(NA)	61.6	203.4	57.9	116.0	179.4	362.4	683.8	1,036.1	37.1	139.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	61.0	190.1	57.3	112.3	166.9	339.9	617.8	956.7	30.5	134.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	63.8	193.2	60.1	115.9	170.6	340.5	601.2	927.3	29.5	115.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	67.8	204.4	63.8	128.1	181.2	340.5	652.3	997.3	20.8	109.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	356	310	67.8	179.8	63.9	117.5	157.6	292.2	562.4	855.4	15.5	117.4	93	77

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Ratio is based on excluding shipments of +141 million of finished purchased yarns from establishments classified in industry 2269.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of yarn, except wool shipped by all producers in 1967 was \$1,682.4 million of which \$1,282.7 million, or 76 percent, were shipped by plants classified in industries 2281 and 2269, Yarn Mills except Wool, and Finishing Plants, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 76 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2881.--YARN MILLS, EXCEPT WOOL												
United States, total.....	373	323	73.6	306.6	69.4	140.3	271.8	552.2	854.0	1,403.1	89.0	61.6	363.2
New England.....	23	16	2.2	10.5	2.1	4.6	9.6	13.0	16.7	30.6	0.3	2.8	19.8
Rhode Island.....	4	3	0.1	0.7	0.1	0.3	0.6	1.1	1.3	2.4	0.1	(D)	(D)
Middle Atlantic.....	26	9	1.8	8.5	1.7	3.5	6.9	12.8	26.4	39.5	0.7	1.1	6.7
Pennsylvania.....	10	8	1.6	7.4	1.5	3.1	6.0	11.4	23.0	34.8	0.6	(D)	(D)
South Atlantic.....	269	253	60.7	248.0	57.2	114.9	219.9	454.1	705.7	1,156.0	77.5	49.9	285.4
North Carolina.....	190	181	44.5	180.3	42.1	83.8	160.7	334.5	483.4	813.9	56.5	38.5	225.7
South Carolina.....	28	24	4.8	20.2	4.5	9.2	17.7	32.8	65.8	97.7	4.8	(D)	(D)
Georgia.....	46	43	10.4	44.8	10.1	20.7	39.2	82.2	150.9	234.3	15.6	7.8	41.5
East South Central....	43	38	8.4	38.1	8.0	16.6	34.2	69.6	101.3	170.6	(D)	7.3	48.6
Tennessee.....	9	5	1.8	9.2	1.8	4.1	8.4	17.7	21.7	39.2	3.6	1.9	16.2
Texas.....	5	3	0.1	0.4	0.1	0.2	0.4	0.5	0.7	1.2	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967				1963			
		Total shipments including interplant transfers		Transfers to other plants of the same company		Total shipments including interplant transfers		Transfers to other plants of the same company	
		Quantity (million pounds)	Value (million dollars)	Quantity (million pounds)	Value (million dollars)	Quantity (million pounds)	Value (million dollars)	Quantity (million pounds)	Value (million dollars)
2881- --	YARN, EXCEPT WOOL, TOTAL.....	(X)	1,682.4	(X)	(X)	(X)	1,292.3	(X)	(X)
2281- --	Spun cotton and manmade fiber yarns.....	(X)	1,541.3	(X)	(X)	(X)	1,183.3	(X)	(X)
2269 pt.	Finished yarn not spun in the same establishment.....	(X)	1,411.1	(X)	(X)	(X)	109.0	(X)	(X)
22811 -- 22690 pt.	Carded cotton yarns, total <sup>1</sup> .....	736.1	425.0	(X)	(X)	647.7	395.8	(X)	(X)
22811 10	Carded cotton yarns (gray).....	677.4	382.9	143.6	75.8	612.7	366.6	113.3	66.3
22811 87 22690 21	Carded cotton yarns, finished: Finished in plants with spinning facilities... Finished from purchased yarns <sup>2</sup> .....	29.0 29.7	18.0 24.1	(X) (X)	(X) (X)	13.9 21.1	10.5 18.7	(X) (X)	(X) (X)
22812 -- 22690 pt.	Combed cotton yarns, total <sup>1</sup> .....	439.1	376.4	(X)	(X)	433.3	386.1	(X)	(X)
22812 10	Combed cotton yarns (gray).....	344.8	274.3	69.2	60.1	352.4	293.6	90.6	77.2
22812 51 22690 23	Combed cotton yarns, dyed: Finished in plants with spinning facilities... Finished from purchased yarns.....	19.1 20.3	17.0 21.6	(X) (X)	(X) (X)	26.6	28.9	(X)	(X)
22812 61 22690 32	Yarns, mercerized cotton: Mercerized in plants with spinning facilities..... Mercerized from purchased yarns <sup>2</sup> .....	30.0	42.3	(X)	(X)	31.7	42.6	(X)	(X)
22812 71 22690 12	Yarns, bleached: Finished in plants with spinning facilities... Finished from purchased yarns <sup>2</sup> .....	24.9	21.2	(X)	(X)	22.6	21.0	(X)	(X)
22813 -- 22690 --	Rayon and/or acetate spun yarns, total <sup>1</sup> .....	334.2	203.4	(X)	(X)	272.5	167.7	(X)	(X)
22813 10	Rayon and/or acetate spun yarns (gray).....	303.1	185.4	68.5	38.5	252.9	148.5	68.5	39.3
22813 43 22690 26	Rayon and/or acetate spun yarns, finished: Finished in plants with spinning facilities... Finished from purchased yarns <sup>3</sup> .....	31.1	18.0	(X)	(X)	9.4 10.2	5.0 14.3	(X) (X)	(X) (X)
28814 --	Spun noncellulosic fiber and silk yarns (nylon, acrylic, polyester, etc.), total <sup>1</sup> .....	567.9	645.0	(X)	(X)	238.3	326.5	(X)	(X)
22814 10	Spun noncellulosic fiber and silk yarns (gray)..	474.3	538.9	(X)	(X)	219.7	302.8	64.4	84.2
22814 43 22690 29	Spun noncellulosic fiber and silk yarns, finished: Finished in plants with spinning facilities... Finished from purchased yarns <sup>3</sup> .....	67.0 26.6	78.9 27.2	(X) (X)	(X) (X)	18.6	23.7	(X)	(X)
22810 00	Cotton and manmade fiber spun yarns, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	30.9	(X)	(X)	20.3	16.2	(X)	(X)
22810 02	Cotton and manmade fiber spun yarns, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	1.7	(X)	(X)				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>To the extent that finished yarns are made from purchased yarns (Code 2269- --) the industry and product class totals contain some duplications.

<sup>2</sup>Carded yarns bleached or mercerized from purchased yarns are included with the data for combed yarns.

<sup>3</sup>For 1963, spun noncellulosic yarns finished from purchased yarns are included with Code 22690 26.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2281.--YARN MILLS, EXCEPT WOOL					
	Materials, containers, and supplies, total.....	.....	(X)	818.6	(X)	679.6
011201	Raw cotton.....	1,000 bales.....	2,055.7	291.2	1,899.2	347.1
229701	Raw wool, mohair, and other animal fiber (scoured weight).....	Million pounds..	28.8	19.4	3.6	4.4
229704	Wool tops.....	...do.....	12.2	16.7	4.5	7.5
282305	Rayon and acetate staple and tow.....	...do.....	286.3	83.3	234.9	69.4
282421	All other manmade fiber staple and tow, except glass.....	...do.....	398.4	279.7	151.5	140.6
010014	All other fibers (silk, jute, reused wool, waste, etc.).....	...do.....	52.1	10.5	95.5	20.3
282402	All other manmade filament yarn, except glass.....	...do.....	4.6	5.9	13.0	12.8
228101	Purchased spun yarn, all fibers, including transfers from other plants of the company.....	...do.....	24.9	14.1	13.7	9.7
281531	Dyes, lakes, and toners.....	.....	(X)	7.0	(X)	3.8
970099	All other materials, containers, and supplies consumed.....	.....	(X)	63.0	(X)	49.7
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	.....	(X)	27.8	(X)	14.4

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2281, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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**OFFICIAL BUSINESS**

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE**



UNITED STATES  
DEPARTMENT OF  
COMMERCE  
BUREAU OF ECONOMIC ANALYSIS

# 1967 CENSUS OF MANUFACTURES

MC67(P)-22E-2

## INDUSTRY SERIES

preliminary  
report

### Throwing and winding mills SIC Code 2282

The Yarn Throwing, Twisting, and Winding Mills; Cotton, Manmade Fibers, and Silk, includes establishments primarily engaged in throwing, twisting, winding or spooling yarn wholly or chiefly by weight of cotton, manmade fibers or silk. Establishments primarily engaged in dyeing or finishing purchased yarns or finishing yarns on a commission basis are classified in industry 2269, Finishing Plants, N.E.C.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as throwing and winding mills amounted to

\$568.0 million, an increase of 78 percent compared with 1963. Value added by manufacture at \$173.1 million in 1967 was 85 percent more than value added in 1963. Average employment in the industry showed an increase of 36 percent from 1963 to a total of 18.5 thousand employees in 1967.

Of the \$568.0 million total value of shipments and other receipts of establishments classified as throwing and winding mills, \$5.2 million were products primary to other industries; and \$23.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2282.--THROWING AND WINDING MILLS													
1967 Census....	181	130	18,5	78.6	16.9	34.6	64.9	173.1	387.8	568,0	18,0	48.0	99	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	16.3	63.6	14.5	29.2	49.4	139.9	298.9	438.4	16.3	48.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	15.5	59.2	14.4	28.1	45.5	133.3	284.5	405.1	9.0	50.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	*16.0	*59.6	*14.3	*29.6	*48.0	*103.0	*275.6	*368.0	*14.9	*42.0	(NA)	(NA)
1963 Census....	180	110	13.6	47.1	12.1	24.1	37.3	93.6	226.6	319.3	6.2	35.1	95	88
1962 ASM <sup>1</sup> .....	(NA)	(NA)	12.9	45.0	11.4	22.9	35.0	88.3	169.8	253.1	3.5	26.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	12.4	41.8	11.0	21.8	32.4	73.2	144.1	215.9	*3.3	23.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	11.8	38.7	10.4	20.6	29.5	65.3	111.9	177.8	1.1	19.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	12.7	40.9	11.3	22.5	31.6	77.4	119.4	193.4	*2.8	20.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	195	119	11.9	37.6	10.3	20.3	28.7	67.6	106.3	174.6	3.2	16.3	95	77

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS George Hay Brown, Director

The total value of throw and wound yarn shipped by all producers in 1967 was \$588.9 million of which \$539.1 million, or 91 percent, were shipped by plants classified in industry 2282, Throwing and Winding Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 88 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2282, the Census Bureau collects current production statistics on selected products. These data on textured, crimped, or bulked filament yarn appear in the Current Industrial Reports series:

MA-22F, Yarn Production.

Information is shown for this item description by fiber, by end use, and method of distribution.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2282.--THROWING AND WINDING MILLS												
United States, total.....	181	130	18.5	78.6	16.9	34.6	64.9	173.1	387.8	568.0	18.0	13.6	93.6
Middle Atlantic.....	94	62	5.2	20.9	4.7	9.0	16.6	40.3	58.8	99.3	(D)	6.2	40.4
New York.....	30	14	0.7	2.7	0.6	1.1	2.3	5.5	6.8	12.3	(D)	1.7	14.2
New Jersey.....	20	10	0.7	3.5	0.6	1.1	2.4	7.1	15.6	22.7	(D)	0.5	3.5
Pennsylvania.....	44	38	3.9	14.6	3.5	6.7	11.9	27.7	36.4	64.3	1.7	4.1	22.7
South.....	63	52	11.9	51.9	10.9	23.1	43.7	122.7	313.1	442.4	15.3	(D)	(D)
North Carolina.....	38	31	6.7	30.4	6.1	13.3	25.2	71.2	208.4	284.0	(D)	3.6	32.5

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967		1963			
		Total shipments including interplant transfers		Total production  (million pounds)	Total shipments including interplant transfers		Produced and consumed in same establishment  (million pounds)
		Quantity	Value		Quantity	Value	
		(million pounds)	(million dollars)		(million pounds)	(million dollars)	
2282- --	TEXTURED, THROWN, AND WOUND YARN, TOTAL.....	(X)	588.9	(X)	(X)	331.4	(X)
22822 11	Rewound, plied, and novelty yarns, other than wool not spun or thrown at same establishments .....	(X)	79.3	(X)	(X)	69.0	(X)
22823 --	Thrown filament yarns, except textured.....	(X)	81.4	(X)	(X)	75.9	(X)
	Weaving yarns:						
22823 21	Rayon and/or acetate.....	6.8	9.1	34.3	7.0	7.3	25.0
22823 23	Nylon.....	12.5	23.6	43.9	10.5	20.2	18.0
22823 25	Other weaving yarns.....	4.2	6.3	32.2	3.4	10.4	28.5
	Machine knitting yarns:						
22823 31	Nylon.....	2.7	6.2	10.7	8.4	22.3	(NA)
22823 33	Other machine knitting yarns.....	1.2	2.0				
22823 35	Other thrown yarns.....	(NA)	1.5	6.7	3.3	6.2	(NA)
22823 00	Thrown filament yarns, except textured, n.s.k.....	(X)	32.7	14.3	14.3	19.5	(X)
22824 00	Textured, crimped, or bulked filament yarns, including stretch yarns <sup>2</sup> .....	197.6	361.5	86.4	69.5	158.1	12.6
22829 --	Commission throwing, plying, etc., of yarn.....	(X)	47.6	(X)	(X)	28.4	(X)
22829 11	Receipts for throwing or texturing of filament yarns <sup>3</sup> .....	(X)	37.8	(X)	(X)	21.7	(X)
22829 51	Receipts for winding, warping, etc., yarn not thrown or spun at same establishment.....	(X)	7.1	(X)	(X)	6.8	(X)
22829 00	Receipts for throwing, plying, etc., of yarn, n.s.k.....	(X)	2.7	15.9	(X)	(X)	(X)
22820 00	Textured, thrown, and rewound yarn, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	15.9				
22820 02	Textured, thrown, and rewound yarn, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	3.2				

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1963, these figures represent both thrown filament yarn and textured yarn, n.s.k., also, production and quantity of shipments data estimated based on the quantity-value relationship reported for other products.

<sup>2</sup>For both 1967 and 1963, data for textured yarn exclude production and shipments by establishments producing filament yarn and classified in industries 2823, Cellulosic Manmade Fibers, and 2824, Organic Fibers, Noncellulosic. Total production for this item as published in Current Industrial Reports Series, MA-22F, in 1967 was 420,468 thousand pounds. This report also furnishes more detailed data for this product description.

<sup>3</sup>For yarns thrown on commission, the figures represent commission receipts rather than the value of the yarns thrown.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2282.--THROWING AND WINDING MILLS					
	Materials, containers, and supplies, total.....		(X)	351.4	(X)	204.5
282301	Rayon and acetate filament yarn.....	Million pounds...	26.7	32.7	6.6	5.8
282402	All other manmade filament yarn, except glass.....	...do.....	168.1	218.7	99.3	145.2
228101	Purchased spun yarn, all fibers, including transfers from other plants of the company.....	...do.....	15.8	13.9	21.3	30.7
281531	Dyes, lakes, and toners.....		(X)	1.6	(X)	0.6
970099	All other materials, containers, and supplies consumed.....		(X)	45.1	(X)	22.2
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....		(X)	39.4		

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



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This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

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This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2282, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

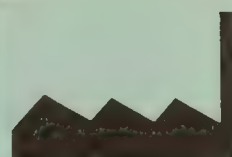
**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

OFFICIAL BUSINESS

POSTAGE AND FEES  
U.S. DEPARTMENT OF COMMERCE



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Wool yarn mills

SIC Code 2283

Yarn Mills, Wool, Including Carpet and Rug Yarn include establishments primarily engaged in spinning, twisting, winding or spooling yarn (including carpet and rug yarn) wholly or chiefly by weight of wool, mohair, or similar animal fibers. Establishments primarily engaged in dyeing or finishing purchased wool yarn or finishing wool yarn on a commission basis are classified in industry 2231.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied as wool yarn mills amounted to \$362.3 million, a decrease of 14 percent compared with 1963. Value added by manufacture at \$120.1 million in 1967 was 1 percent more than value added in 1963. Average employment in the industry showed a decrease of 16 percent from 1963 to a total of 14.6 thousand employees in 1967.

Of the \$362.3 million total value of shipments and other receipts of establishments classified as wool yarn mills, \$77.4 million were products primary to other industries; and \$22.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 77 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 85 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2283.--WOOL YARN MILLS													
1967 Census....	134	106	14.6	65.7	12.8	25.7	51.8	120.1	237.9	362.3	8.9	56.7	77	80
1966 ASM <sup>1</sup> .....	(NA)	(NA)	15.1	64.6	13.6	27.5	53.0	121.6	289.5	407.3	13.5	59.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	15.6	63.3	14.1	29.4	53.2	123.8	286.1	406.9	10.3	58.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	16.3	65.6	14.8	30.3	53.8	116.7	342.3	462.1	7.5	63.6	(NA)	(NA)
1963 Census....	144	121	17.4	66.5	15.8	32.0	55.0	119.7	306.4	422.2	7.3	69.5	85	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	18.6	71.0	17.0	33.4	58.0	113.2	301.8	409.7	11.2	60.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	18.0	64.9	16.4	31.2	52.6	113.5	278.7	391.0	*6.8	55.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	18.1	62.8	16.6	31.2	52.2	102.1	261.1	362.2	*9.3	43.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	17.9	63.3	16.5	32.8	53.8	105.9	225.7	329.7	(S)	42.1	(NA)	(NA)
1958 Census <sup>2</sup> ....	150	122	16.0	54.2	14.7	29.1	45.1	91.2	181.2	273.6	5.1	38.6	85	78

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of wool yarn shipped by all producers in 1967 was \$328.5 million of which \$262.8 million, or 80 percent, were shipped by plants classified in industry 2283, Wool Yarn Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2283, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-22F, Yarn Production.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2283.--WOOL YARN MILLS													
United States, Total.....	134	106	14.6	65.7	12.8	25.7	51.8	120.1	237.9	362.3	8.9	17.4	119.7
New England.....	62	51	4.9	20.9	4.5	8.8	17.6	36.0	55.3	93.7	1.3	5.6	35.0
Massachusetts.....	24	18	1.2	5.5	1.0	2.2	4.6	8.2	12.4	21.4	0.2	1.2	7.0
Rhode Island.....	15	14	2.0	7.7	1.7	3.4	6.4	16.4	19.8	36.5	0.7	2.4	14.3
Middle Atlantic.....	31	22	2.3	11.7	1.8	3.5	7.5	20.5	28.6	49.9	0.4	2.1	15.7
South.....	33	28	6.3	28.5	5.6	11.6	23.4	57.3	141.8	200.6	6.9	(D)	(D)
North Carolina.....	15	11	2.2	9.5	2.0	3.9	7.8	20.8	56.4	76.9	3.6	2.9	26.4
Georgia.....	7	6	2.0	9.1	1.7	3.6	7.3	13.3	31.6	46.8	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967				1963					Produced and consumed in same establishment (million pounds)
		Total shipments including interplant transfers		Transfers to other plants of the same company		Total production (million pounds)	Total shipments including interplant transfers		Transfers to other plants of the same company		
		Quantity (million pounds)	Value (million dollars)	Quantity (million pounds)	Value (million dollars)		Quantity (million pounds)	Value (million dollars)	Quantity (million pounds)	Value (million dollars)	
2283- --	WOOL YARN, TOTAL.....	(X)	328.5	49.2	69.2	556.6	249.1	411.7	86.2	119.6	278.4
22831 20	Wool yarns, except carpet yarns, including blends chiefly wool (new, reused, and reprocessed wool).....	115.0	234.6	17.2	32.2	393.5	137.2	271.0	22.1	40.6	236.7
22832 11	Wool carpet (weaving and tufting) yarns, including blends chiefly wool (new, reused, and reprocessed wool)..	67.9	78.7	32.0	37.0	163.1	111.9	140.7	64.1	79.0	41.7
22830 00	Wool yarns, n.s.k. (For companies with 10 or more employees. See Note.)....	(X)	14.8	-	-	-	-	-	-	-	-
22830 02	Wool yarns, n.s.k. (For companies with less than 10 employees. See Note.)..	(X)	0.4	-	-	-	-	-	-	-	-

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. n.s.k. Not specified by kind. (X) Not applicable.

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(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2283.--WOOL YARN MILLS					
	Materials, containers, and supplies, total.....		(X)	229.3	(X)	290.5
229701	Raw wool, mohair, and other animal fiber (scoured weight).....	million pounds...	78.3	59.0	118.9	103.1
229704	Wool tops.....	...do.....	58.6	87.6	75.4	116.9
282305	Rayon and acetate staple and tow.....	...do.....	(X)	( <sup>1</sup> )	12.0	3.4
282421	All other manmade fiber staple and tow, except glass.....	...do.....	39.5	35.4	27.7	23.9
282402	All other manmade filament yarn, except glass.....	...do.....	(X)	( <sup>1</sup> )	1.8	2.7
010014	All other fibers (silk, jute, reused wool, waste, etc.).....	...do.....	8.1	3.3	23.7	11.8
228101	Purchased spun yarn, all fibers, including transfers from other plants of the company.....	...do.....	(NA)	9.8	1.5	2.8
281531	Dyes, lakes, and toners.....	.....	(X)	3.5	(X)	3.9
970099	All other materials, containers, and supplies consumed.....	.....	(X)	<sup>1</sup> 20.4	(X)	16.8
976000	Materials, containers, and supplies, n.s.k. <sup>2</sup> .....	.....	(X)	10.3	(X)	5.2

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Included in code 970099.

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

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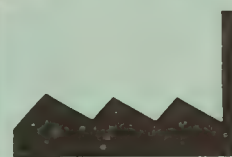
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-22E-4

## INDUSTRY SERIES

### Thread mills

SIC Code 2284

preliminary  
report

Thread Mills include establishments primarily engaged in manufacturing thread from natural or manmade fiber except flax (industry 2299) and wool (industry 2283). Important products of this industry include sewing, crochet, darning, embroidery, tatting, hand knitting and other handcraft threads.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as thread mills amounted to \$255.4 million, an increase of 32 percent compared with 1963.

Value added by manufacture at \$98.6 million in 1967 was 30 percent more than value added in 1963. Average employment in the industry showed an increase of 13 percent from 1963 to a total of 11.4 thousand employees in 1967.

Of the \$255.4 million total value of shipments and other receipts of establishments classified as thread mills, \$13.6 million were products primary to other industries; and \$6.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2284.--THREAD MILLS													
1967 Census....	75	39	11.4	49.6	9.9	19.2	38.6	98.6	158.2	255.4	11.6	45.5	95	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.8	52.2	10.2	21.0	40.6	105.6	160.5	264.3	10.0	45.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.5	45.4	8.9	18.9	35.4	83.9	141.4	227.5	7.4	39.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	10.2	40.7	8.9	18.4	32.0	85.0	125.9	207.9	3.7	39.3	(NA)	(NA)
1963 Census....	71	36	10.1	37.4	8.8	17.5	28.9	75.8	119.0	194.1	3.3	36.2	93	90
1962 ASM <sup>1</sup> .....	(NA)	(NA)	11.1	39.0	9.6	19.1	30.6	74.1	121.4	197.4	3.0	39.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	10.7	36.7	9.4	18.3	28.5	70.5	115.4	188.5	2.2	37.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	11.6	39.9	10.1	19.7	31.3	69.9	113.2	184.0	5.1	45.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	11.5	38.8	10.0	19.9	30.3	77.3	111.2	182.6	4.3	42.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	87	50	11.5	36.5	10.0	19.1	27.9	64.8	113.6	178.2	1.8	38.6	90	91

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of thread shipped by all producers in 1967 was \$256.2 million of which \$235.7 million, or 92 percent, were shipped by plants classified in industry 2284, Thread Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 90 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

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Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
							(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2284.--THREAD MILLS												
United States, total.....	75	39	11.4	49.6	9.9	19.2	38.6	98.6	158.2	255.4	11.6	10.1	75.8
Massachusetts.....	11	6	0.7	3.6	0.6	1.2	2.5	6.9	8.2	15.0	0.1	(D)	(D)
Middle Atlantic.....	26	6	0.6	2.9	0.5	0.9	1.9	5.7	10.2	16.1	(D)	0.5	4.8
New York.....	18	1	0.1	1.0	0.1	0.2	0.4	2.3	5.8	7.9	0.1	(D)	(D)
South.....	26	21	7.5	32.1	6.6	12.8	25.9	59.7	119.2	178.3	10.3	(D)	(D)
North Carolina.....	15	12	4.3	17.8	3.7	7.1	13.7	40.2	73.4	113.1	(D)	2.9	27.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Production for all purposes (pounds)	Total shipments, including interplant transfers		Production for all purposes	Total shipments, including interplant transfers	
			Quantity (pounds)	Value (million dollars)		Quantity (pounds)	Value (million dollars)
2284- --	THREAD, TOTAL.....	(X)	(X)	256.2	(X)	(X)	194.3
22841 --	Finished thread for use in the home, total.....	(X)	(X)	28.3	9,969	9,858	27.5
22841 11	Cotton sewing thread.....	5,537	5,584	21.8	5,015	4,930	17.9
22841 51	Cotton crochet, darning, embroidery, and hand knitting thread, and handwork cottons.....	(1)	(1)	6.5	{ 4,782	4,760	8.0
22841 55	Manmade fiber thread.....						
22841 59	Other thread for use in the home, except flax, wool or wool-based blends and spun manmade fibers designed for hand knitting.....						
22842 --	Finished thread for industrial or manufacturers' use.....	(X)	(X)	184.0	70,504	68,609	131.5
22842 11	Cotton, except industrial weight goods or braided.....	63,865	66,299	115.8	60,997	59,367	92.4
22842 15	Cotton industrial weight goods, including braided thread.....	2,729	2,729	7.0	2,992	2,872	5.4
22842 21	Manmade fiber thread <sup>2</sup> .....	10,144	10,162	53.4	{ 5,714	5,593	29.0
33842 31	Silk thread <sup>2</sup> .....						
22842 00	Finished thread for industrial or manufacturers' use, n.s.k.....	(X)	(X)	7.8	(X)	(X)	(X)
22843 11	Unfinished thread shipped or transferred to other plants for finishing.....	32,380	34,380	40.8	27,528	27,513	32.5
22840 00	Thread, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	1.6	{ (X)	(X)	2.8
22840 02	Thread, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	(X)	1.5			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Separate data were requested for each of the products shown; however, due to an inadequate response rate the quantity figures can not be shown.

<sup>2</sup>For 1963, the product description read, "Other natural fiber thread, including silk, except flax."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2284.--THREAD MILLS					
	Materials, containers, and supplies, total.....	.....	(X)	150.9	(X)	112.4
011201	Raw cotton.....	1,000 bales....	83.3	18.4	74.7	18.9
282402	All other manmade filament yarn, except glass.....	Million lbs....	8.2	12.7	5.2	8.6
228101	Purchased spun yarn, all fibers, including transfers from other plants of the company.....	...do.....	78.3	86.5	62.2	62.6
281531	Dyes, lakes, and toners.....	.....	(X)	7.5	(X)	4.1
970099	All other materials, containers, and supplies consumed.....	.....	(X)	23.5	(X)	14.3
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	.....	(X)	2.3	(X)	3.9

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2284, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

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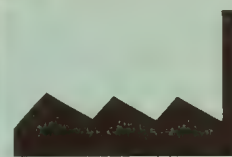
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U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-22F-1

INDUSTRY SERIES

**preliminary  
report**

**Felt goods, n.e.c.**

**SIC Code 2291**

The Felt Goods, Except Woven Felts and Hats Industry includes establishments primarily engaged in manufacturing pressed felt, regardless of fiber, by means of heat, moisture, and pressure; and those making punched felt for rugs, cushions and other products from hair, jute, wool, or other fibers by the needle loom process. Establishments primarily engaged in manufacturing woven wool felts and wool haircloth are classified in industry 2231, and those manufacturing felt hats in Group 235.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Felt Goods, N.E.C., Industry amounted to \$133.6 million, a decrease of 0.3 percent compared with 1963. Value added by manufacture at \$63.6 million in 1967 was 9 percent more than value added in 1963. Average employment in the industry showed a decrease of 10 percent from 1963 to a total of 4,5 thousand employees in 1967.

Of the \$133.6 million total value of shipments and other receipts of establishments classified as felt goods, n.e.c., \$29.6 million were products primary to other industries; and \$3.0 million were receipts for miscellaneous activities. The

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2291.--FELT GOODS, N.E.C.													
1967 Census....	40	28	4.5	26.3	3.6	7.7	19.1	63.6	69.3	133.6	3.2	16.6	86	88
1966 ASM <sup>1</sup> .....	(NA)	(NA)	4.8	27.7	3.6	8.0	19.4	61.8	84.9	144.9	2.6	19.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	5.4	31.3	4.3	9.0	22.4	72.4	93.7	165.5	2.6	23.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	5.1	28.9	4.1	9.2	21.5	62.0	83.8	144.4	2.6	21.0	(NA)	(NA)
1963 Census....	36	30	5.0	27.0	4.0	8.7	20.0	58.6	76.0	134.0	1.8	19.9	86	88
1962 ASM <sup>1</sup> .....	(NA)	(NA)	4.1	22.7	3.4	7.2	17.0	48.4	65.9	114.8	2.8	17.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	4.1	21.0	3.4	7.1	15.6	45.5	56.7	101.3	1.8	14.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	4.5	22.7	3.7	7.8	16.6	51.0	56.3	106.2	*2.9	15.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	5.0	24.5	4.2	8.9	18.1	52.6	60.9	114.0	*2.5	14.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	66	28	4.6	21.3	3.6	7.7	15.4	44.4	50.2	95.4	1.1	14.2	89	86

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
**Rocco C. Siciliano**, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

industry shipments of primary products represented 77 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

The total value of felt goods, n.e.c., shipped by all producers in 1967 was \$133.3 million of which \$101.0 million, or 76 percent, were shipped by plants classified in industry 2291, Felt Goods, N.E.C., while the remainder was shipped by

plants classified in other industries. This percent, called the coverage ratio, was 88 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2291, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-22T.5, Nonwoven Fabrics.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See Appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employ- ees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2291.--FELT GOODS, N.E.C.													
United States, total.....	40	28	4.5	26.3	3.6	7.7	19.1	63.6	69.3	133.6	3.2	5.0	58.6
New England.....	13	9	1.6	9.9	1.4	2.9	7.5	18.2	22.1	40.6	0.8	1.5	14.6
South.....	6	6	0.9	4.2	0.8	1.5	2.9	10.1	10.8	21.1	1.4	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Code	Product	Unit of measure	1967 total shipments, including interplant transfers		Production for all purposes (quantity)	1963 Total shipments, including interplant transfers	
			Quantity	Value (million dollars)		Quantity	Value (million dollars)
2291- --	FELT GOODS, N.E.C., TOTAL.....	.....	(X)	133.3	(X)	(X)	119.6
	Pressed wool felts:						
22910 11	Industrial felts (1/8" thick and over).....	Million lbs.....	( <sup>1</sup> )	20.2	11.8	11.7	19.4
22910 19	Other pressed wool felts.....	...do.....	7.8	12.3	8.3	8.4	12.6
	Punched or needled felts: <sup>2</sup>						
	Carpet and rug cushions:						
22910 31	Hair and/or jute not coated or laminated with latex, vinyl, or plastic.....	Million sq. yds.	61.3	20.7	57.6	58.0	27.5
22910 35	Hair and/or jute coated or laminated with latex, vinyl, or plastic.....	...do.....	59.6	42.4	49.6	50.0	30.9
22910 41	Other hair and jute felts.....	Million lbs.....	42.6	8.1	70.8	67.6	18.0
22910 43	Wool felts.....	...do.....	20.9	28.8	4.5	4.5	9.7
22910 49	Manmade fiber felts.....	...do.....					
22910 00	Felt goods, except woven felts and hats, n.s.k. (For com- panies with more than 10 employees. See Note.).....	.....	(X)	0.4	(X)	(X)	1.5
22912 00	Felt goods, except woven felts and hats, n.s.k. (For com- panies with less than 10 employees. See Note.).....	.....	(X)	0.4			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable. (X) Not applicable.

<sup>1</sup>In 1967, separate data were requested for each of the products listed under pressed wool felts. However, since a number of producers did not report quantity data, these figures have been withheld.

<sup>2</sup>Production data for punched or needled felts are published annually by the Bureau of the Census in Current Industrial Reports Series M22T.5, "Nonwoven Fabrics."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2291.--FELT GOODS, N.E.C.				
	Materials, containers, and supplies, total.....	(X)	60.2	(X)	65.0
229701	Raw wool, mohair and other animal fibers.....	19.5	6.2	31.9	7.5
999823	Wool noils and waste.....	7.5	5.8	10.1	5.1
999807	Other fibers (synthetic staple, tow, waste, etc.).....	50.7	11.1	95.8	10.1
970099	All other materials, containers, and supplies consumed.....	(X)	25.9	(X)	25.7
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	(X)	11.2	(X)	16.7

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2291, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost-of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES

## INDUSTRY SERIES

### Lace goods

SIC Code 2292

preliminary  
report

The Lace Goods Industry includes establishments primarily engaged in manufacturing lace machine products, and those primarily engaged in dyeing and finishing lace goods. Establishments primarily engaged in manufacturing Schiffli machine embroideries are classified in industry 2397. Establishments primarily engaged in manufacturing knitted lace and netting are classified in industry 2256.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Lace Goods Industry amounted to \$65.7

million, an increase of 24 percent compared with 1963. Value added by manufacture at \$36.6 million in 1967 was 16 percent more than value added in 1963. Average employment in the industry showed an increase of 2 percent from 1963 to a total of 5.0 thousand employees in 1967.

Of the \$65.7 million total value of shipments and other receipts of establishments classified as lace goods, \$1.5 million were products primary to other industries; and \$11.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20-employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2292.--LACE GOODS													
1967 Census....	142	48	5.0	23.7	4.4	8.4	19.5	36.6	28.0	65.7	2.0	11.5	97	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	5.2	24.0	4.8	9.0	20.5	27.0	27.6	52.6	*1.5	12.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	4.5	19.9	4.0	7.5	15.7	33.5	22.8	54.9	*0.5	11.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	4.9	20.8	4.3	8.1	16.6	36.5	23.6	58.2	*0.8	10.4	(NA)	(NA)
1963 Census....	152	51	4.9	19.7	4.3	8.1	16.0	31.5	22.0	53.0	0.5	8.2	98	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	4.9	20.1	4.0	7.3	15.6	31.8	28.6	61.3	*1.7	8.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	5.5	22.2	4.6	9.1	17.1	33.3	28.7	62.5	1.2	10.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	5.6	22.1	4.8	8.8	16.8	30.0	24.6	56.4	(S)	10.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	6.6	25.8	5.8	10.2	19.3	38.3	31.2	69.6	(S)	13.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	208	66	6.7	25.8	5.8	10.4	19.5	34.2	26.7	63.3	1.2	13.0	98	95

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 10 and 11, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of lace goods shipped by all producers in 1967 was \$55.2 million of which \$52.7 million, or 95 percent, were shipped by plants classified in industry 2292, Lace Goods, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See Appendix, "Explanation of Terms.")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employ- ees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
							(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2292.--LACE GOODS												
United States, total.....	142	48	5.0	23.7	4.4	8.4	19.5	36.6	28.0	65.7	2.0	4.9	31.5
New England.....	60	18	2.2	10.5	1.9	3.7	8.7	16.0	9.3	25.6	(D)	2.1	11.4
Middle Atlantic.....	70	22	2.3	11.1	2.1	3.8	8.9	17.4	16.3	34.4	0.7	2.4	17.5
New York.....	37	11	0.9	4.2	0.8	1.5	3.8	6.4	7.5	14.1	0.3	0.9	7.1
New Jersey.....	25	7	0.7	3.5	0.6	1.2	3.0	6.0	3.4	9.3	0.3	0.7	5.6
Pennsylvania.....	8	4	0.8	3.4	0.6	1.0	2.2	5.0	5.4	11.0	0.1	0.8	5.0
East South Central....	6	4	0.2	0.8	0.2	0.3	0.6	1.1	1.2	2.5	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2292- --	LACE GOODS, TOTAL.....		(X)	55.2	(X)	49.4
	Leavers lace machine products:					
22920 11	All-overs.....	Mil. sq. yds.	(NA)	22.5	13.9	17.7
22920 19	Edgings, insertions, gallons, flouncings, and all other leavers products.....	...do.....	7.6	12.0	9.4	13.6
22920 55	Nottingham lace machine products, including curtains.....		}	(X)	(X)	14.3
22920 98	All other laces and nets, including bobbinets and Barmen laces....					
22920 00	Lace goods, n.s.k. (For companies with more than 10 employees. See Note.).....		(X)	7.8	}	3.8
22920 02	Lace goods, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	2.3		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	- Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2292.--LACE GOODS				
	Materials, containers, and supplies, total.....	(X)	23.2	(X)	19.6
228102	Cotton yarns.....	(NA)	2.8	3.8	3.9
282011	Manmade fiber yarn (rayon, acetate, nylon, etc.).....	<sup>e</sup> 7.0	11.5	5.0	8.5
970099	All other materials, containers, and supplies, consumed.....	(X)	2.6	(X)	4.4
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	(X)	6.3	(X)	2.8

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishment that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2292, these small establishments accounted for approximately 2 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE  
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Washington, D.C. 20233

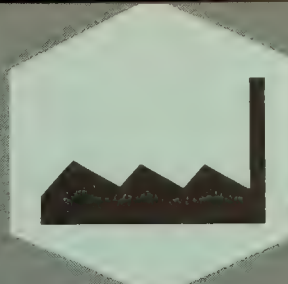
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POSTAGE AND FEES  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Paddings and upholstery filling

SIC Code 2293

The Paddings and Upholstery Filling Industry includes establishments primarily engaged in manufacturing batting, padding, wadding, and filling for upholstery, pillows, quilts and apparel, from curled hair, cotton mill waste, moss, hemp tow, flax tow, kapok, and related materials. Establishments primarily engaged in manufacturing wood excelsior pads and wrappers are classified in industry 2429.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Padding and Upholstery Filling Industry amounted to \$172.2 million, an increase

of 10 percent compared with 1963. Value added by manufacture at \$79.9 million in 1967 was 22 percent more than value added in 1963. Average employment in the industry showed a decrease of 3 percent from 1963 to a total of 6.7 thousand employees in 1967.

Of the \$172.2 million total value of shipments and other receipts of establishments classified as paddings and upholstery filling, \$26.9 million were products primary to other industries; and \$12.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 83 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 84 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2293.--PADDINGS AND UPHOLSTERY FILLING													
1967 Census....	<sup>3</sup> 154	74	6.7	37.1	5.5	11.1	26.9	79.9	92.1	172.2	3.4	17.8	83	83
1966 ASM <sup>1</sup> .....	(NA)	(NA)	8.6	43.9	6.6	12.4	31.9	96.5	109.2	204.6	*5.2	20.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	7.1	37.3	5.9	12.2	27.4	82.1	100.9	182.2	*3.2	16.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	6.2	31.9	5.1	11.0	23.3	61.0	84.0	145.0	1.7	14.6	(NA)	(NA)
1963 Census....	183	73	6.9	33.7	5.7	12.0	25.2	65.6	91.1	156.5	1.9	16.5	84	81
1962 ASM <sup>1</sup> .....	(NA)	(NA)	7.6	35.8	6.1	13.5	24.7	67.4	91.0	157.6	*1.8	19.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	33.2	5.7	11.9	21.8	61.4	88.3	149.7	(S)	19.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	7.5	34.2	6.0	12.3	22.6	68.5	98.2	166.1	(S)	19.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	7.1	32.3	5.7	11.9	21.4	68.7	90.2	158.6	(S)	18.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	196	83	7.1	29.5	5.9	11.6	20.8	57.3	82.1	139.6	2.4	18.4	92	88

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 8 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of padding and upholstery filling shipped by all producers in 1967 was \$160.5 million of which \$132.7 million, or 83 percent, were shipped by plants classified in industry 2293, Padding and Upholstery Filling, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 81 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2293.--PADDINGS AND UPHOLSTERY FILLING													
United States, total.....	154	74	6.7	37.1	5.5	11.1	26.9	79.9	92.1	172.2	3.4	6.9	65.6
New England.....	12	5	0.5	3.0	0.4	0.9	2.0	6.2	5.4	11.6	0.3	0.5	5.1
Middle Atlantic.....	35	13	1.4	7.3	1.1	2.2	5.3	17.4	21.8	39.1	0.6	1.1	10.6
Pennsylvania.....	10	4	0.3	1.8	0.3	0.5	1.1	4.8	3.6	8.4	(2)	0.4	4.4
East North Central....	29	19	2.2	13.2	1.9	3.8	10.6	28.1	28.8	57.1	1.6	2.3	26.0
Illinois.....	6	4	0.3	1.6	0.2	0.4	1.1	3.1	6.7	9.8	-	0.4	3.6
West North Central....	9	3	0.4	2.1	0.3	0.6	1.3	4.9	4.1	9.0	0.1	0.9	7.1
South Atlantic.....	26	12	1.3	6.1	1.1	2.2	4.4	10.3	16.8	27.1	0.5	1.0	6.8
North Carolina.....	10	6	0.8	3.6	0.6	1.2	2.5	6.2	9.9	16.0	0.4	0.6	3.8
Georgia.....	6	3	0.1	0.5	0.1	0.2	0.3	0.8	1.7	2.4	(D)	0.1	1.0
East South Central....	8	5	0.3	1.3	0.3	0.5	0.9	3.2	4.0	7.2	0.1	0.1	1.3
West South Central....	13	6	0.3	1.5	0.2	0.5	1.1	3.6	5.0	8.6	0.1	0.6	3.8
Texas.....	8	4	0.2	1.1	-	0.4	1.0	2.6	3.6	6.3	(2)	0.5	3.1
West.....	22	10	0.5	3.2	0.3	0.7	2.0	6.5	7.8	14.2	0.2	0.5	4.9
California.....	14	10	0.4	2.9	0.3	0.6	1.8	6.0	7.4	13.3	(D)	0.4	4.5

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

-Represents zero.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(2) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2293- --	PADDINGS AND UPHOLSTERY FILLING, TOTAL.....	Million lbs...	(X)	160.5	609.9	150.3
	Automotive pads:					
22930 13	Made from cotton linters, cotton waste, and raw cotton.....	...do.....	(NA)	50.1	191.1	55.0
22930 15	Made from all other fibers.....	...do.....	18.2	5.0	25.0	4.3
22930 19	All other paddings.....	...do.....	<sup>e</sup> 33.8	13.9	34.6	7.2
	Batting, wadding, and mattress felts:					
22930 32	Made from cotton linters, cotton waste, and raw cotton.....	...do.....	<sup>e</sup> 183.0	30.0	222.0	42.4
22930 35	Made from manmade fibers.....	...do.....	<sup>e</sup> 18.7	10.6	15.4	9.2
22930 39	Made from other fibers.....	...do.....	(NA)	11.3	29.8	8.0
	Upholstery filling:					
22930 51	Curled hair.....	...do.....	(NA)	3.8	16.8	8.0
22930 59	Other.....	...do.....	<sup>e</sup> 50.4	6.7	37.2	6.8
22930 00	Paddings and upholstery filling, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	(X)	27.7	38.0	9.4
22930 02	Padding and upholstery filling, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	(X)	1.4		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2293.--PADDING AND UPHOLSTERY FILLING				
	Materials, containers, and supplies, total.....	(X)	81.4	(X)	80.7
999806	Cotton waste.....	176.2	11.2	186.3	14.8
209131	Cotton linters.....	146.8	15.7	194.5	14.8
999807	Other fibers (synthetic staple, tow, waste, etc.).....	73.9	11.0	117.2	15.0
970099	All other materials, containers, and supplies consumed.....	(X)	27.5	(X)	20.0
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	(X)	16.1	(X)	16.0

(X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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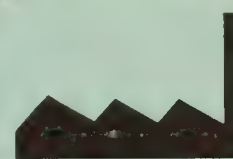
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Processed textile waste

SIC Code 2294

**preliminary  
report**

The Processed Waste and Recovered Fibers and Flock Industry includes establishments primarily engaged in processing textile mill waste for spinning, padding, batting, or other uses; in recovering textile fibers from clippings and rags; in cutting flock from waste, recovered fibers, or new fiber stock; and in manufacturing oakum and twisted jute packing. Establishments primarily engaged in cleaning and sorting wiping rags or waste are classified in industry 5093.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Processed Textile Waste Industry amounted to \$88.9 million, an increase of 1.6 percent compared with 1963. Value added by manufacture at \$33.4 million in 1967 was 7.7 percent more than value added in 1963. Average employment in the industry showed an increase of 2.3 percent from 1963 to a total of 4.3 thousand employees in 1967.

Of the \$88.9 million total value of shipments and other receipts of establishments classified as processed textile waste, \$2.0 million were

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2294, --PROCESSED TEXTILE WASTE													
1967 Census....	138	58	4.3	20.0	3.7	7.7	14.9	33.4	53.3	88.9	1.5	14.5	97	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	4.7	20.4	4.0	8.3	15.4	48.1	77.8	118.7	*2.3	27.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	5.3	22.1	4.6	9.7	16.7	43.1	82.4	122.6	*2.2	21.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	4.1	17.7	3.4	7.2	12.6	36.7	56.5	92.4	1.7	14.6	(NA)	(NA)
1963 Census....	141	59	4.2	17.8	3.6	7.6	12.9	31.0	57.9	87.5	1.2	14.9	95	86
1962 ASM <sup>1</sup> .....	(NA)	(NA)	5.3	21.5	4.2	9.1	14.7	42.5	59.5	99.4	*1.5	11.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	4.7	18.2	3.6	7.5	12.3	30.2	56.1	90.4	(S)	12.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	4.9	18.8	3.9	8.1	12.9	34.6	59.9	93.3	(S)	11.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	5.0	19.2	4.0	8.4	13.0	37.4	63.1	99.3	(S)	13.0	(NA)	(NA)
1958 Census <sup>2</sup> ....	183	68	4.6	17.0	3.8	7.7	11.8	31.1	61.6	93.5	0.9	12.4	96	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

products primary to other industries; and \$11.7 million were receipts for miscellaneous activities. The industry shipments or primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

The total value of processed textile waste shipped by all producers in 1967 was \$82.1 million of which \$75.2 million, or 92 percent, were shipped by plants classified in industry 2294, Processed

Textile Waste, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 86 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2294.--PROCESSED TEXTILE WASTE													
United States, total.....	138	58	4.3	20.0	3.7	7.7	14.9	33.4	53.3	88.9	1.5	4.2	31.0
New England.....	48	15	1.1	5.4	0.9	2.0	3.7	8.4	15.2	23.6	0.4	1.4	9.4
Middle Atlantic.....	31	12	0.8	3.8	0.7	1.4	2.9	8.1	6.8	15.0	0.2	1.2	10.8
New York.....	19	9	0.6	2.8	0.5	1.0	2.1	5.8	5.6	11.4	0.2	0.9	8.5
West North Central....	4	3	0.2	1.1	0.2	0.4	0.8	1.8	1.3	3.1	(D)	0.2	0.8
South.....	40	25	1.9	8.3	1.7	3.4	6.5	13.4	28.2	43.7	(D)	1.1	7.0
South Atlantic.....	28	19	1.4	6.2	1.2	2.4	4.7	9.6	17.2	27.6	0.7	(D)	(D)
North Carolina....	13	9	0.5	2.2	0.4	0.9	1.6	3.7	6.7	10.4	0.2	0.2	1.0
South Carolina....	9	7	0.6	2.5	0.5	1.1	2.2	3.9	9.3	13.9	0.3	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2294- --	PROCESSED TEXTILE WASTE, TOTAL.....		(X)	82.1	(X)	83.3
	Fiber recovered from:					
22940 12	Wool clips and rags (new and used).....	Million lbs....	18.0	10.4	20.5	10.0
22940 18	Other clips and rags.....	do.....	15.9	4.6	51.7	7.4
	Fiber recovered from mill waste, excluding fiber recovered from clips and rags:					
22940 21	Cotton.....	do.....	52.0	8.0	55.8	8.4
22940 23	Wool.....	do.....	3.1	1.5	7.9	3.5
22940 27	Manmade fibers.....	do.....	70.0	30.3	(NA)	34.9
22940 29	Other fibers.....	do.....	0.4	0.8	(NA)	2.9
22940 41	Flock, all fibers (new stock, waste, or reclaimed fiber).....	do.....	19.7	10.7	24.3	7.0
22940 51	Oakum.....	do.....	13.0	2.6	18.0	3.3
22940 00	Processed textile waste and recovered fibers, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	11.1	(X)	6.0
22940 02	Processed textile waste and recovered fibers, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	2.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2294.--PROCESSED TEXTILE WASTE				
	Materials, containers, and supplies, total.....	(X)	47.5	(X)	52.6
999806	Cotton waste.....	43.0	2.7	58.9	5.1
999823	Wool noils and waste.....	5.7	1.9	9.5	3.2
999807	Other fibers (synthetic staple, tow, waste, etc.).....	55.3	17.4	(NA)	26.4
999825	New and used rags, clips, etc.....	39.6	10.3	77.6	10.7
970099	All other materials, containers, and supplies consumed.....	(X)	10.3	(X)	3.3
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	(X)	4.9	(X)	4.0

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

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**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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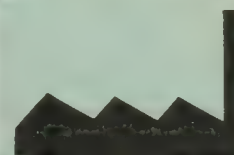
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-22F-5

## INDUSTRY SERIES

### preliminary report

## Coated fabrics, not rubberized

SIC Code 2295

The Artificial Leather, Oilcloth, and Other Impregnated and Coated Fabrics, Except Rubberized, Industry includes establishments primarily engaged in manufacturing coated and impregnated textiles, and in the special finishing of textiles, such as varnishing and waxing. Establishments primarily engaged in rubberizing purchased fabrics are classified in industry 3069, and those primarily engaged in dyeing and finishing textiles in Group 226.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Coated Fabrics, Not Rubberized, Industry amounted to \$629.1 million, an increase of 44 percent compared with 1963. Value added by manufacture at \$260.8 million in 1967 was 45 percent more than value added in 1963. Average employment in the industry showed an increase of 31 percent from 1963 to a total of 17.9 thousand employees in 1967.

Of the \$629.1 million total value of shipments and other receipts of establishments classified as coated fabrics, not rubberized, \$84.1 million were products primary to other industries; and \$33.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 86 percent of the total manufactured product shipments, primary and

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2295.--COATED FABRICS, NOT RUBBERIZED														
1967 Census....	179	116	17.9	123.6	12.9	27.5	79.7	260.8	376.0	629.1	17.8	110.8	86	90
1966 ASM <sup>1</sup> .....	(NA)	(NA)	17.7	121.3	13.1	28.5	78.4	234.1	360.5	595.2	28.5	108.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	16.7	109.4	12.3	25.9	70.8	221.0	322.0	538.1	23.2	88.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	14.4	95.9	10.5	22.8	62.1	177.9	269.5	443.4	*13.0	77.0	(NA)	(NA)
1963 Census....	162	87	13.7	89.2	10.2	22.1	58.8	179.3	258.0	435.7	12.4	69.0	86	83
1962 ASM <sup>1</sup> .....	(NA)	(NA)	12.7	78.6	9.1	19.6	48.3	157.1	231.8	385.0	8.0	67.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	12.8	76.7	9.3	20.0	47.2	142.9	217.2	357.1	11.1	59.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	12.2	71.0	8.8	18.9	46.3	135.0	200.0	335.7	10.4	54.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	10.8	61.7	7.7	16.9	39.9	124.2	182.9	301.6	*7.5	51.5	(NA)	(NA)
1958 Census <sup>2</sup> ....	126	64	10.2	54.0	7.2	15.4	33.8	100.4	146.2	246.6	8.6	42.5	83	80

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures; in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

The total value of coated fabrics, not rubberized, shipped by all producers in 1967 was \$568.5 million of which \$511.6 million, or 90 percent, were shipped by plants classified in industry 2295, Coated Fabrics, Not Rubberized, while the remainder was shipped by plants classified in other industries. This percent, called the

coverage ratio, was 84 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	All em- ployees  (1,000)	Value added by manufac- ture  (million dollars)
	Total	With 20 employ- ees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2295.--COATED FABRICS, NOT RUBBERIZED												
United States, total.....	179	116	17.9	123.6	12.9	27.5	79.7	260.8	376.0	629.1	17.8	13.7	179.3
New England.....	42	31	4.7	31.4	3.4	7.4	20.8	63.7	97.4	160.5	3.3	(D)	(D)
Massachusetts.....	26	17	2.3	16.1	1.7	3.5	10.4	32.1	52.8	85.0	1.5	2.2	30.0
Middle Atlantic.....	70	43	4.8	33.4	3.5	7.3	20.8	70.3	98.2	166.1	3.5	(D)	(D)
New York.....	37	22	2.4	16.8	1.7	3.5	10.2	35.1	43.1	75.2	1.4	2.0	20.0
North Central.....	31	21	5.6	42.7	3.9	8.3	27.2	85.8	119.2	201.1	8.7	4.5	66.2
Ohio.....	15	11	3.3	24.3	2.2	4.6	16.0	53.0	69.5	119.4	5.2	2.5	38.0
South.....	19	11	1.9	10.2	1.6	3.5	7.6	26.7	44.1	70.7	1.6	0.8	10.3
West.....	17	10	0.8	6.0	0.5	1.0	3.2	14.3	16.9	30.8	0.7	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967		Production for all purposes (quantity)	1963	
			Total shipments, including interplant transfers			Total shipments, including interplant transfers	
			Quantity	Value (million dollars)		Quantity	Value (million dollars)
2295- --	COATED FABRICS, NOT RUBBERIZED, TOTAL.....	Million lin. yds.	(X)	568.5	470.5	451.3	427.2
22951 --	Pyroxylin-coated fabrics, total.....	...do.....	58.0	38.6	<sup>1</sup> 69.9	<sup>1</sup> 68.1	<sup>1</sup> 39.3
	On a textile base (excluding shade cloth):						
22951 11	Light cotton fabrics (print cloths, sheetings, etc.)....	...do.....	41.3	27.2	32.9	32.4	19.0
22951 15	Heavy cotton fabrics (ducks, drills, twills, sateens, etc.).....	...do.....	<sup>e</sup> 9.2	5.3	8.6	7.6	6.0
22951 19	Fabrics other than cotton.....	...do.....	7.3	6.0	<sup>1</sup> 28.4	<sup>1</sup> 28.1	<sup>1</sup> 14.2
22951 00	Pyroxylin-coated materials, n.s.k.....	.....	<sup>2</sup> 0.2	0.1	(X)	(X)	(X)
22952 --	Vinyl coated fabrics, total.....	...do.....	(X)	345.2	186.8	173.3	233.4
22952 11	Lightweight fabrics (finished weight 10 oz. and under per sq. yd.).....	...do.....	61.6	46.5	36.3	26.2	23.5
	Heavyweight fabrics (finished weight over 10 oz. per sq. yd.):						
	Woven fabric base.....	...do.....	113.6	155.4	89.9	87.2	120.2
22952 21	Spread, cast, and calender coated.....	...do.....	85.0	122.4	89.9	87.2	120.2
22952 23	Laminated (other than calendered).....	...do.....	28.6	33.0			
22952 25	Impregnated.....	...do.....	73.6	111.0			
	Knitted fabric base.....	...do.....	61.2	93.7	54.4	53.8	81.8
22952 31	Spread, cast, and calender coated.....	...do.....	12.4	17.3			
22952 33	Laminated (other than calendered).....	...do.....	6.4	5.7			
22952 35	Impregnated.....	...do.....	(D)	(D)	4.5	4.4	5.6
22952 41	Spread, cast, and calender coated.....	...do.....	-	-			
22952 43	Laminated (other than calendered).....	...do.....	(D)	(D)			
22952 45	Impregnated.....	...do.....	(D)	(D)	(1)	(1)	(1)
22952 71	Shade cloth.....	...do.....	(NA)	26.6			
22952 00	Vinyl coated fabrics, n.s.k.....	...do.....	(X)	163.0	<sup>2</sup> 1.7	<sup>2</sup> 1.7	2.3
22953 --	Other coated fabrics, total.....	...do.....	(X)	163.0	201.7	197.9	137.4
22953 13	Other coated fabrics (finished weight 10 oz. and under per sq. yd.).....	...do.....	80.0	57.1	201.7	197.9	137.4
	Other coated fabrics (finished weight over 10 oz. per sq. yd.), total.....	...do.....	(NA)	105.9			
	Woven fabric base.....	...do.....	47.4	40.6			
22953 21	Spread, cast, and calender coated.....	...do.....	<sup>e</sup> 23.8	13.5	10.8	8.7	-
22953 23	Laminated (other than calendered).....	...do.....	<sup>e</sup> 17.9	10.9			
22953 25	Impregnated.....	...do.....	<sup>e</sup> 5.7	16.2			
	Knitted fabric base.....	...do.....	10.8	8.7	(NA)	14.7	28.9
22953 31	Spread, cast, and calender coated.....	...do.....	-	-			
22953 33	Laminated (other than calendered).....	...do.....	<sup>e</sup> 10.8	8.7			
22953 35	Impregnated.....	...do.....	-	-	28.2	28.9	-
	Nonwoven fabric base.....	...do.....	(NA)	43.6			
22953 41	Spread, cast, and calender coated.....	...do.....	(NA)	14.7			
22953 43	Laminated (other than calendered).....	...do.....	28.2	28.9	(NA)	13.0	-
22953 45	Impregnated.....	...do.....	(NA)	13.0			
22953 00	Other coated fabrics (except rubber coated) n.s.k.....	...do.....	(NA)	13.0			
22950 00	Coated fabrics, except rubberized, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	(X)	20.8	<sup>2</sup> 12.0	<sup>2</sup> 12.0	17.2
22950 02	Coated fabrics, except rubberized, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	(X)	0.9			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. <sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1963, product code 22952 71 is included with product code 22951 19.

<sup>2</sup>Quantity data estimated or partially estimated based on the unit value relationship reported for other products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2295.--COATED FABRICS, NOT RUBBERIZED					
	Materials, containers, and supplies, total.....	.....	(X)	359.1	(X)	245.6
282137	Vinyl and vinyl copolymer resins, all forms.....	Million lbs.....	229.8	49.0	140.2	27.4
220234	Cotton fabrics.....	Million lin. yds.	331.1	117.1	272.3	90.8
220241	Manmade fiber fabrics, including glass.....	...do.....	84.8	43.0	28.5	19.1
970099	All other materials, containers, and supplies consumed.....	.....	(X)	114.9	(X)	80.3
976000	Materials, containers, supplies, n.s.k.....	.....	(X)	35.1	(X)	28.0

n.s.k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2295, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

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**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

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# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

## Tire cord and fabric

SIC Code 2296

preliminary  
report

The Tire Cord and Fabric Industry includes establishments primarily engaged in manufacturing cord and fabric for use in reinforcing rubber tires, industrial belting, fuel cells, and similar uses.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Tire Cord and Fabric Industry amounted to \$444.1 million, an increase of 17 percent compared with 1963. Value added by manufacture at \$91.5 million in 1967 was 27 percent more

than value added in 1963. Average employment in the industry showed an increase of 9 percent from 1963 to a total of 10.1 thousand employees in 1967.

Of the \$444.1 million total value of shipments and other receipts of establishments classified as tire cord and fabric, \$68.7 million were products primary to other industries; and \$9.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 87 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2296.—TIRE CORD AND FABRIC													
1967 Census....	20	19	10.1	48.7	9.2	18.4	41.7	91.5	354.3	441.1	15.2	49.2	84	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	10.7	53.7	9.8	21.4	47.2	107.3	395.3	504.7	11.2	51.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.0	46.8	9.1	19.5	40.6	95.2	370.3	464.6	7.3	47.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	9.2	40.0	8.4	17.5	34.3	87.4	351.4	434.7	4.7	42.4	(NA)	(NA)
1963 Census....	20	19	9.2	35.1	8.3	16.4	30.0	72.3	303.6	375.7	3.0	37.2	87	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	9.9	37.2	9.1	18.0	32.2	73.7	313.1	386.1	4.4	38.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	11.4	39.5	10.5	20.4	34.4	72.6	287.8	359.6	8.8	43.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	12.2	41.6	11.3	21.6	36.6	75.0	305.1	385.9	3.6	40.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	13.0	44.6	12.1	24.4	39.6	77.7	374.7	445.5	7.1	50.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	23	23	12.2	36.1	11.3	21.0	32.2	69.8	300.8	375.8	6.0	43.9	85	94

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

The total value of tire cord and fabric shipped by all producers in 1967 was \$396.0 million of which \$365.5 million, or 92 percent, were shipped by plants classified in industry 2296, Tire Cord and Fabric, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2296, the Census Bureau collects statistics on selected products. These data appear in the Current Industrial Reports series:

MQ-22T.4 Tire Cord and Tire Cord Fabrics

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2296.—TIRE CORD AND FABRIC													
United States, total.....	20	19	10.1	48.7	9.2	18.4	41.7	91.5	354.3	444.1	15.2	9.2	72.3
South.....	15	15	9.5	45.8	8.7	17.4	39.3	87.1	336.0	420.7	15.1	(D)	(D)
Georgia.....	6	5	4.7	22.3	4.3	8.7	19.8	43.4	152.2	195.3	(D)	4.5	30.9

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Total production	Total shipments, including interplant transfers		Transfers to other plants of the same company		Total production	Total shipments, including interplant transfers		Transfers to other plants of the same company	
			Quantity (million pounds)	Value (million dollars)	Quantity (million pounds)	Value (million dollars)		Quantity (million pounds)	Value (million dollars)	Quantity (million pounds)	Value (million dollars)
2296 --	TIRE CORD AND FABRIC, TOTAL.....	472.0	474.9	396.0	354.2	306.7	425.2	405.4	349.2	296.7	257.4
22960 10	Cotton tire cord and tire fabric: Total as reported in the census of manufactures.....	(X)	4.4	3.1	3.2	2.3	12.8	13.9	12.1	9.5	6.7
	Total as reported on Census quarterly Form M22T.....	4.5	(X)	(X)	(X)	(X)	12.9	(X)	(X)	(X)	(X)
22960 12	Tire cord and tire cord fabric.....	4.5	(X)	(X)	(X)	(X)	0.9	(X)	(X)	(X)	(X)
22960 14	All other tire fabrics, except chafer fabrics <sup>1</sup> .....		(X)	(X)	(X)	(X)	12.0	(X)	(X)	(X)	(X)
22960 30	Manmade fiber tire cord and tire fabric: Total as reported in the census of manufactures.....	(X)	470.5	392.9	351.0	304.4	412.4	391.5	337.1	287.2	250.7
	Total as reported on Census quarterly Form M22T.....	467.5	(X)	(X)	(X)	(X)	411.3	(X)	(X)	(X)	(X)
22960 32	Rayon tire cord and tire cord fabric.....	126.1	(X)	(X)	(X)	(X)	196.1	(X)	(X)	(X)	(X)
22960 36	Nylon tire cord and tire cord fabric.....	332.3	(X)	(X)	(X)	(X)	204.2	(X)	(X)	(X)	(X)
	Polyester tire cord and tire cord fabric.....		(X)	(X)	(X)	(X)		(X)	(X)	(X)	(X)
22960 38	Chafer and other manmade fiber tire fabric.....	9.1	(X)	(X)	(X)	(X)	10.9	(X)	(X)	(X)	(X)

(X) Not applicable.

<sup>1</sup>Data for 1963 and prior years include chafer fabrics. Chafer fabrics are now included in Product Class 2211100.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2296.—TIRE CORD AND FABRIC					
	Materials, containers, and supplies, total.....		(X)	348.9	(X)	298.6
011201	Raw cotton.....	1,000 bales.....	106.9	13.3	104.4	18.1
282301	Rayon and acetate filament yarn.....	Million lbs.....	109.6	48.3	161.2	77.8
282402	All other manmade filament yarn, except glass.....	.....do.....	312.4	256.1	174.9	162.0
270099	All other materials, containers, and supplies consumed <sup>1</sup> .....		(X)	31.2	(X)	40.7

(X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2296, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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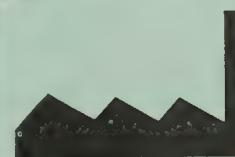
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**OFFICIAL BUSINESS**



# 1967 CENSUS OF MANUFACTURES



MC67(P)-22F-7

## INDUSTRY SERIES

### Scouring and combing plants

SIC Code 2297

**preliminary  
report**

Wool Scouring, Worsted Combing and Tow to Top Mills include establishments primarily engaged in processing textile fibers to prepare them for spinning. Important processes included in this industry are wool scouring and carbonizing, and combing and converting top.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as scouring and combing plants amounted to \$96.5 million, a decrease of 20 percent compared with 1963. Value added by manufacture at \$37.6 million in 1967 was 17 percent

less than value added in 1963. Average employment in the industry showed a decrease of 9 percent from 1963 to a total of 5.3 thousand employees in 1967.

Of the \$96.5 million total value of shipments and other receipts of establishments classified as scouring and combing plants, \$13.1 million were products primary to other industries; and \$33.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 79 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

The total value of scouring and combing mill products shipped by all producers in 1967 was

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2297.--SCOURING AND COMBING PLANTS													
1967 Census....	69	40	5.3	27.3	4.8	9.8	21.8	37.6	57.6	96.5	5.7	17.1	79	54
1966 ASM <sup>1</sup> .....	(NA)	(NA)	5.8	28.3	5.1	10.7	22.4	44.7	76.3	119.1	3.0	21.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	5.8	26.1	5.0	10.7	21.0	43.0	72.6	117.2	2.8	19.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	4.8	21.8	4.3	8.8	17.0	34.5	82.7	117.0	2.7	16.0	(NA)	(NA)
1963 Census....	69	38	5.8	24.7	5.2	10.6	19.8	45.4	75.6	119.9	3.3	17.4	94	69
1962 ASM <sup>1</sup> .....	(NA)	(NA)	5.6	24.1	5.0	10.7	19.0	44.7	53.5	97.7	*4.4	17.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	5.6	22.7	5.0	10.3	17.8	40.4	57.5	96.4	(S)	17.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	6.6	26.6	5.9	12.3	21.1	43.3	60.3	102.1	2.0	15.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	29.1	6.4	13.9	23.2	45.8	65.0	110.2	2.0	17.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	81	46	6.1	22.7	5.4	11.2	17.9	36.1	48.5	87.6	1.3	13.6	92	59

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

\$92.4 million of which \$50.1 million, or 54 percent, were shipped by plants classified in industry 2297, Scouring and Combing Plants, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 69 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2297, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M22D, Consumption on the Woolen and Worsted Systems.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2297.--SCOURING AND COMBING PLANTS													
United States, total.....	69	40	5.3	27.3	4.8	9.8	21.8	37.6	57.6	96.5	5.7	5.8	45.4
New England.....	35	18	2.6	13.8	2.3	4.6	10.9	21.5	30.5	52.4	(D)	(D)	(D)
Rhode Island.....	10	6	0.7	3.5	0.6	1.2	2.8	4.6	4.9	9.8	(D)	(D)	(D)
Pennsylvania.....	10	8	0.4	2.5	0.4	0.7	1.8	2.7	5.5	8.6	(D)	0.7	5.9
South.....	13	10	1.9	8.0	1.7	3.4	6.6	10.3	4.5	14.8	4.1	(D)	(D)
South Atlantic.....	7	7	1.7	7.2	1.5	3.0	6.0	9.1	4.1	13.2	4.1	(D)	(D)
Texas.....	5	3	0.2	0.8	0.2	0.4	0.7	1.3	0.3	1.6	(Z)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967 Total shipments, including interplant transfers		1963		
		Quantity (million pounds)	Value (million dollars)	Total produc- tion (million pounds)	Total shipments, including interplant transfers	
					Quantity (million pounds)	Value (million dollars)
2297- --	SCOURING AND COMBING MILL PRODUCTS, TOTAL.....	(X)	92.4	(X)	(X)	111.1
22970 17	Scoured wool.....	6.9	6.5	(X)	24.6	21.7
	Tops and noils:					
	Top combed on worsted combs:					
22970 20	Wool of the sheep.....	42.8	69.7	137.2	38.5	70.6
22970 30	Other top.....	(D)	(D)	25.9	5.7	4.9
	Noils:					
22970 50	Wool of the sheep.....	(D)	(D)	15.0	4.6	3.2
22970 60	Other noils.....	(D)	(D)	2.4	( <sup>1</sup> )	( <sup>1</sup> )
22970 70	Top or sliver converted from tow without combing.....	(D)	(D)	61.9	7.3	6.6
22970 75	Nubs and slubs.....	3.5	2.9	(NA)	(NA)	1.4
22970 81	Recovered wool grease (anhydrous basis).....	51.4	3.5	7.6	8.4	0.8
22970 00	All other scouring and combing mill products, including products n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	4.3	}	(X)	1.9
22970 00	All other scouring and combing mill products, including products n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	0.4			
22979 93	Receipts for commission scouring, combing, and related processing of materials owned by others.....	(X)	<sup>2</sup> 30.0	(X)	(X)	<sup>2</sup> 30.9

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind.

(X) Not applicable.

<sup>1</sup>For 1963, product code 22970 60 is included with product code 22970 00.

<sup>2</sup>Commission receipts are not included in total shown above for 2297- --Scouring and Combing Mill Products.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Materials data for this industry will not be published separately)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2297, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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POSTAGE AND FEES  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Cordage and twine

SIC Code 2298

The Cordage and Twine Industry includes establishments primarily engaged in manufacturing rope, cable, cordage, twine, and related products from abaca (Manila), sisal, henequen, hemp, cotton, paper, jute, flax, manmade fibers including glass, and other fibers.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Cordage and Twine Industry amounted to \$187.5 million, an increase of 26 percent compared with 1963. Value added by manufacture at \$95.4 million in 1967 was 66 percent more than

value added in 1963. Average employment in the industry showed an increase of 13 percent from 1963 to a total of 10.1 thousand employees in 1967.

Of the \$187.5 million total value of shipments and other receipts of establishments classified as cordage and twine, \$28.9 million were products primary to other industries; and \$8.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2298.—CORDAGE AND TWINE													
1967 Census....	165	82	10.1	48.3	8.6	17.1	36.1	95.4	94.6	187.5	4.4	42.3	84	87
1966 ASM <sup>1</sup> .....	(NA)	(NA)	9.1	38.3	7.9	15.6	28.9	59.2	93.4	164.7	3.9	36.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	9.2	38.7	7.7	15.6	27.5	76.7	96.5	170.8	5.1	41.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	9.4	38.0	8.0	15.9	28.0	70.3	93.1	163.5	2.8	37.3	(NA)	(NA)
1963 Census.....	167	76	8.9	34.5	7.7	14.8	26.6	57.6	91.4	149.3	*2.7	38.9	90	87
1962 ASM <sup>1</sup> .....	(NA)	(NA)	8.9	34.0	7.4	14.7	25.1	62.5	84.1	146.4	2.1	37.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	8.8	32.7	7.3	14.2	23.5	61.7	76.8	138.9	1.2	38.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	9.0	33.8	7.5	14.8	23.8	63.3	74.5	138.8	1.2	37.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	9.5	34.2	8.0	15.9	25.2	65.3	76.7	139.0	2.0	39.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	147	71	9.6	33.1	8.2	15.5	24.7	65.1	75.8	141.6	1.6	37.7	92	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

The total value of cordage and twine shipped by all producers in 1967 was \$171.1 million of which \$150.3 million, or 87 percent, were shipped by plants classified in industry 2298, Cordage and Twine, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 87 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2298.—CORDAGE AND TWINE												
United States, total.....	165	82	10.1	48.3	8.6	17.1	36.1	95.4	94.6	187.5	4.4	8.9	57.6
New England.....	29	14	1.0	4.3	0.8	1.5	3.0	8.2	8.8	16.4	0.6	1.5	9.8
Massachusetts.....	12	6	0.5	2.6	0.4	0.8	1.8	4.9	5.6	9.9	0.5	1.0	6.7
Connecticut.....	11	6	0.3	1.2	0.2	0.5	0.9	2.1	2.6	4.7	(D)	0.2	1.7
Middle Atlantic.....	36	15	2.2	13.5	1.7	3.6	8.9	22.9	26.9	50.5	1.1	2.2	14.7
New York.....	23	8	1.4	8.5	1.1	2.4	5.7	12.4	16.7	31.0	0.8	1.5	9.4
North Central.....	24	11	1.4	7.3	1.1	2.2	5.4	17.1	13.0	29.3	0.4	0.8	2.5
South.....	60	35	5.0	21.0	4.5	9.0	17.0	41.8	40.5	80.8	2.1	3.9	22.9
South Atlantic.....	33	23	2.4	9.5	2.2	4.2	7.8	18.4	20.4	38.3	1.2	1.8	10.5
North Carolina....	15	13	1.4	5.5	1.3	2.5	4.6	10.0	11.0	20.6	0.6	0.9	5.3
Georgia.....	9	6	0.6	2.4	0.6	1.1	1.9	4.9	5.5	10.6	(D)	0.5	2.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2298- --	CORDAGE AND TWINE, TOTAL.....	Million lbs...	(NA)	171.1	311.7	145.0
22981 --	Hard fiber cordage and twine, total.....	...do.....	124.9	39.2	153.4	42.3
	Hard fiber cordage:					
	Abaca rope and cable:					
22981 11	3/4-inch diameter and larger.....	...do.....	28.9	13.6	31.6	12.9
22981 15	Less than 3/4-inch diameter.....	...do.....	21.1	9.5	20.0	8.4
22981 29	Other hard fiber rope and cable.....	...do.....	6.7	2.2	13.9	4.6
	Hard fiber twine:					
22981 32	Baler and binder twine.....	...do.....	168.1	113.7	69.6	11.7
22981 39	Other hard fiber twine, including twine and cord made of a combination of hard fiber and paper.....	...do.....			15.8	4.1
22981 00	Hard fiber cordage and twine, n.s.k.....	...do.....	0.1	0.2	2.4	0.6
22982 --	Soft fiber cordage and twine (except cotton), total.....	...do.....	(NA)	79.8	90.8	59.8
	Manmade fiber cordage and twine:					
22982 14	Fishline.....	...do.....	(NA)	6.9	0.8	5.6
22982 17	Rope.....	...do.....	24.3	29.3	15.3	19.6
22982 19	All other manmade fiber cordage and twine.....	...do.....	26.6	24.9	26.9	213.5
	Soft fiber cordage and twine, except cotton or manmade:					
22982 23	Jute.....	...do.....	34.5	11.2	20.5	6.7
22982 25	Paper.....	...do.....	23.0	5.6	42.7	11.3
22982 27	Other.....	...do.....	2.2	0.9	0.9	0.7
22982 00	Soft fiber cordage and twine, except cotton, n.s.k.....	...do.....	(NA)	1.1	3.7	2.4
22983 --	Cotton cordage and twine, total.....	...do.....	64.0	43.0	57.2	38.2
22983 11	Braided cord.....	...do.....	20.3	17.4	18.9	13.1
22983 25	Wrapping, seine, and other twine.....	...do.....	35.6	20.9	33.9	20.4
22983 98	All other cotton cordage.....	...do.....	8.1	4.7	3.3	3.9
22983 00	Cotton cordage and twine, n.s.k.....	...do.....			1.1	0.8
22980 00	Cordage and twine, n.s.k. (For companies with more than 10 employees. See Note).....	...do.....	(X)	6.4	10.3	4.8
22980 02	Cordage and twine, n.s.k. (For companies with less than 10 employees. See Note).....	...do.....	(X)	2.7	10.3	4.8

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Figures combined to avoid disclosing operations of individual companies.

<sup>2</sup>Included unknown quantity of fish nets.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2298.—CORDAGE AND TWINE				
	Materials, containers, and supplies, total.....	(X)	86.2	(X)	82.8
228102	Cotton yarns.....	23.9	8.5	18.5	7.7
282011	Manmade fiber yarn (rayon, acetate, nylon, etc.).....	43.3	28.3	19.7	16.4
970099	All other materials, containers, and supplies consumed.....	(X)	41.4	(X)	51.3
976000	Materials, containers, supplies, n.s.k.....	(X)	8.0	(X)	7.4

n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2298, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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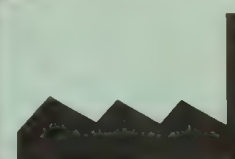
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-22F-9

## INDUSTRY SERIES

preliminary  
report

### Textile goods, n.e.c.

SIC Code 2299

The Textile Goods, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing linen goods, jute goods except felt, bonded-fiber fabrics except felt, and other textile goods, not elsewhere classified. Establishments primarily engaged in manufacturing woven felts are classified in industry 2231, nonwoven felts in industry 2291, and cordage and twine in industry 2298.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Textile Goods, N.E.C., Industry amounted to \$218.6 million, an increase of 29 percent compared with 1963. Value added by manufacture at \$95.1 million in 1967 was 21 percent more than value added in 1963. Average employment in the industry showed an increase of 18 percent from 1963 to a total of 8.6 thousand employees in 1967.

Of the \$218.6 million total value of shipments and other receipts of establishments classified as textile goods, n.e.c., \$30.1 million were products primary to other industries; and \$24.9 million were receipts for miscellaneous activities. The

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)							
INDUSTRY 2299.—TEXTILE GOODS, N.E.C.														
1967 Census....	194	68	8.6	47.6	7.0	14.2	32.0	95.1	124.3	218.6	8.6	29.0	8.4	74
1966 ASM <sup>1</sup> .....	(NA)	(NA)	10.4	54.3	8.1	16.1	33.6	100.6	138.1	235.9	9.8	31.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	8.6	44.1	6.8	13.8	28.3	92.4	112.1	202.5	6.2	28.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	6.6	34.9	5.1	10.1	21.9	72.5	97.4	172.4	10.5	23.8	(NA)	(NA)
1963 Census....	137	56	7.3	34.9	5.8	11.7	22.9	78.7	91.6	169.8	5.3	25.9	85	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	7.0	29.8	5.6	11.0	20.3	64.8	74.3	139.7	3.4	24.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	6.7	28.7	5.4	10.9	19.0	58.2	72.0	131.7	2.3	23.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	6.8	29.2	5.4	10.7	19.5	61.0	72.7	132.9	2.5	25.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	6.8	29.9	5.1	10.4	19.3	63.6	71.7	135.0	3.8	27.0	(NA)	(NA)
1958 Census <sup>2</sup> ....	138	49	7.9	32.5	6.0	11.7	20.4	60.8	71.6	134.6	4.0	30.2	84	86

(NA) Not applicable. n.e.c. Not elsewhere classified.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 85 percent in 1963.

The total value of textile goods, n.e.c., shipped by all producers in 1967 was \$220.2 million of which \$163.6 million, or 74 percent, were shipped by plants classified in industry 2299, Textile Goods, N.E.C., while the remainder was shipped

by plants classified in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2299, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-22T.5, Nonwoven Fabrics.

Data are shown for production of nonwoven textile (except ribbons).



## 1967 CENSUS OF MANUFACTURES

3

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	2299.—TEXTILE GOODS, N.E.C.												
United States, total.....	194	68	8.6	47.6	7.0	14.2	32.0	95.1	124.3	218.6	8.6	7.3	78.7
New England.....	34	12	1.4	7.7	1.2	2.3	5.1	14.6	12.3	27.1	3.8	1.2	11.1
Massachusetts.....	22	7	1.1	5.9	0.9	1.7	3.6	11.6	8.5	20.4	(D)	1.1	9.5
Middle Atlantic.....	79	27	2.7	15.8	2.3	4.5	9.2	30.0	45.1	75.0	1.4	2.2	20.4
New York.....	39	13	1.1	5.8	0.9	2.0	3.9	11.8	21.4	33.0	0.4	0.4	4.5
New Jersey.....	22	9	1.3	8.1	1.0	1.9	3.8	14.6	19.1	33.9	0.8	0.9	9.8
Pennsylvania.....	18	5	0.4	1.9	0.4	0.6	1.4	3.5	4.6	8.1	0.1	1.0	6.1
North Central.....	24	10	1.5	9.4	1.1	2.2	5.0	21.0	22.0	43.2	0.8	(D)	(D)
Illinois.....	8	4	0.8	5.4	0.5	1.1	2.0	5.3	8.2	13.5	(D)	(D)	(D)
South.....	40	14	2.6	13.1	2.3	4.7	10.6	25.0	39.3	63.6	2.5	1.8	17.5
South Atlantic.....	27	6	1.5	7.4	1.2	2.8	6.2	12.2	22.9	34.6	2.1	(D)	(D)
West.....	17	5	0.3	1.5	0.2	0.6	1.1	4.5	5.7	9.6	0.2	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(NA) Not available. n.e.c. Not elsewhere classified.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2299- --	TEXTILE GOODS, N.E.C., TOTAL.....	.....	(X)	220.2	(X)	163.9
22991 --	Nonwoven textiles, total.....	.....	(X)	<sup>1</sup> 152.5	(X)	110.6
22991 01	Nonwoven textiles (except ribbons).....	Million lbs....	<sup>3</sup> 115.8	119.3	76.0	73.7
	Ribbons nonwoven for gift tyings:					
22991 03	Christmas gift tyings.....	Million lin.yds.	1,924.6	22.8	1,685.5	24.7
22991 05	Other gift tyings.....	do.....	789.0	9.1	1,298.8	11.0
22991 00	Nonwoven textiles and nonwoven ribbons, n.s.k.....	.....	(X)	1.3	(X)	1.1
22992 --	Jute goods (except jute felts, cordage or twine) and linen goods, total.....	.....	(X)	28.8	(X)	42.9
22992 61	Jute yarn, bagging and all other jute woven goods, except felts.	.....	(X)	15.2	(X)	22.9
22992 75	Linen thread, fabric, and other linen goods.....	.....	(X)	12.1	(X)	13.4
22992 00	Other textile goods, n.e.c., including jute or linen goods, n.s.k.....	.....	(X)	1.5	(X)	6.6
22990 00	Textile goods, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	35.3	}	10.4
22990 02	Textile goods, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	3.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Includes some duplication since some nonwoven ribbons are made from purchased nonwoven fabrics.

<sup>2</sup>Nonwoven textiles (bonded fiber fabrics) are defined as those fabrics which are neither woven, knitted, or spun, but built up by the interlocking of fibers by chemical bonding agents, such as plastic resins; or of fusible fibers. This is done by mechanical work, chemical action, moisture or heat, and may be produced by any one method or a combination of these factors. Within the above scope, a bonded fiber fabric may be defined as a textile structure consisting of a web or mat of fibers held together with a bonding material.

<sup>3</sup>For 1967, production of nonwoven textiles as shown in annual Census series M22T.5, Nonwoven Fabrics, was reported at 142.2 million pounds whereas the total reported in 1963 was 96.2 million pounds.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)



## SCOPE AND COVERAGE

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This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2299, these small establishments accounted for approximately 1 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

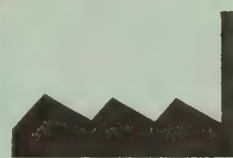








# 1967 CENSUS OF MANUFACTURES



MC67(P)-23A-1

## INDUSTRY SERIES

### Men's and boys' suits and coats

SIC Code 2311

**preliminary  
report**

The Men's, Youths', and Boys' Suits, Coats, and Overcoats Industry includes establishments primarily engaged in manufacturing men's, youths', and boys' suits, coats, and overcoats. Establishments primarily engaged in manufacturing uniforms (except athletic uniforms) are also included in this industry. Establishments primarily engaged in manufacturing men's work garments are classified in industry 2328.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Men's and Boys' Suits and Coats

Industry amounted to \$1,926.1 million, an increase of 26 percent compared with 1963. Value added by manufacture at \$1,055.5 million in 1967 was 26.9 percent more than value added in 1963. Average employment in the industry showed an increase of 11.5 percent from 1963 to a total of 136.8 thousand employees in 1967.

Of the \$1,926.1 million total value of shipments and other receipts of establishments classified as men's and boys' coats and suits manufacturers, \$128.3 million were products primary to other industries; and \$342.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See Appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2311. --MEN'S AND BOYS' SUITS AND COATS													
1967 Census....	<sup>2</sup> 1,004	650	136.8	645.1	120.8	223.4	512.6	1,055.5	868.1	1,926.1	15.7	331.8	92	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	133.6	609.4	118.2	223.0	486.9	1,025.1	845.4	1,849.5	16.1	338.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	131.1	580.5	116.5	217.4	468.0	950.6	836.0	1,762.8	9.4	316.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	125.1	515.7	109.9	201.6	408.5	825.8	736.1	1,560.4	*10.8	289.3	(NA)	(NA)
1963 Census....	1,112	635	122.7	494.2	109.0	198.6	398.1	831.9	715.1	1,526.0	6.9	288.7	92	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	124.1	485.2	108.7	198.8	413.8	756.2	751.6	1,490.7	5.6	271.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	125.2	460.1	108.8	192.3	391.4	723.1	702.1	1,425.2	5.6	231.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	133.3	488.8	116.8	213.7	417.5	747.8	767.4	1,506.7	7.4	254.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	128.8	457.8	112.6	208.5	388.2	719.4	727.7	1,432.9	6.3	236.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,365	763	122.2	408.0	107.2	184.8	321.5	642.5	651.0	1,295.4	4.9	199.5	93	97

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued January 1970

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary****Rocco C. Siciliano, Under Secretary****Harold C. Passer, Assistant Secretary for Economic Affairs****BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of Men's and boys' suits and coats shipped by all producers in 1967 was \$1,504.9 million of which \$1,455.2 million, or 96 percent, were shipped by plants classified in industry 2311, Men's and Boys' Suits and Coats, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2311, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Annual Apparel Survey and are shown in table 3 of this report. Data as shown for the census represents shipments, whereas that shown for the MA-23A, Annual Apparel Survey, represents production. The data vary as a result of reporting differences for individual plants furnishing data on both surveys. A detailed review was undertaken to determine the reason for the difference in uniform garments shown in the two surveys. As a result of that review, it was discovered that several military contractors were not reporting on the MA-23A. These companies are being added to that survey, and revised 1967 figures will be shown in the 1968 publication of MA-23A, Annual Apparel Survey.



## 1967 CENSUS OF MANUFACTURES

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

3

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2311, --MEN'S AND BOYS' SUITS AND COATS													
United States, total.....	1,004	650	136.8	645.1	120.8	223.4	512.6	1,055.5	868.1	1,926.1	15.7	122.7	831.9
New England.....	85	60	8.2	37.2	7.4	13.1	29.9	61.3	45.1	106.6	0.7	7.1	46.6
Massachusetts.....	72	49	7.3	33.9	6.6	11.6	27.1	57.1	43.4	100.7	0.6	6.1	42.2
Rhode Island.....	5	4	0.4	1.3	0.4	0.7	1.0	1.9	0.5	2.4	(Z)	0.3	1.3
Middle Atlantic.....	581	357	69.7	348.0	62.0	115.2	279.9	548.2	461.0	1,009.2	7.0	65.2	454.5
New York.....	346	171	30.2	162.0	25.9	48.3	124.9	262.8	257.5	519.2	2.8	30.9	238.5
New Jersey.....	64	50	7.5	36.4	7.0	13.4	31.3	60.8	33.2	93.3	0.6	6.4	38.3
Pennsylvania.....	171	136	32.0	149.7	29.0	53.6	123.6	224.6	170.3	396.7	3.5	27.9	177.6
East North Central....	77	41	15.3	75.7	12.4	23.0	56.1	134.3	102.8	238.0	2.0	14.9	115.1
Ohio.....	22	14	5.1	23.2	4.1	7.5	17.8	51.4	58.6	112.2	1.0	5.6	53.7
Illinois.....	44	20	8.7	45.4	7.0	13.1	32.8	72.8	39.2	110.9	0.9	8.0	55.6
West North Central....	39	31	4.4	19.2	3.8	7.1	14.1	29.7	25.1	56.4	0.2	4.3	23.8
Minnesota.....	13	9	0.9	4.2	0.7	1.4	2.8	6.3	4.8	11.5	(D)	0.8	4.5
Missouri.....	21	18	3.2	13.7	2.7	5.1	10.1	21.7	19.3	42.2	0.1	3.0	18.1
South Atlantic.....	104	81	18.4	82.4	16.2	30.0	62.9	139.7	142.9	283.2	2.9	15.7	106.3
Maryland.....	60	41	8.2	39.5	6.6	11.8	27.6	76.2	103.2	184.1	1.9	7.9	63.8
Georgia.....	18	18	5.1	23.0	4.8	9.2	17.5	36.5	29.5	64.6	0.5	4.1	25.6
Florida.....	5	5	0.8	2.9	0.8	1.5	2.6	3.9	1.6	5.4	0.1	0.4	1.9
East South Central....	39	35	12.2	44.3	11.2	20.4	38.3	77.5	43.5	121.5	1.7	9.7	49.2
Kentucky.....	15	14	4.8	18.4	4.4	7.9	15.9	31.6	15.8	46.9	0.4	(D)	(D)
Tennessee.....	13	11	4.7	16.5	4.4	8.0	14.5	30.3	18.9	50.3	1.1	3.5	18.6
West South Central....	22	16	4.5	18.5	4.1	7.9	15.3	30.8	24.8	56.8	0.5	2.2	11.9
West.....	57	29	4.1	19.7	3.7	6.8	16.2	33.5	22.8	55.5	0.7	3.7	24.5
California.....	47	22	3.8	18.6	3.5	6.3	15.3	32.0	21.7	52.8	(D)	3.3	22.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
 (Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers <sup>1</sup>			
		1967		1963	
		Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2311- --	MEN'S AND BOYS' SUITS AND COATS, TOTAL.....	(X)	1,504.9	(X)	1,195.4
23111 --	Men's suits:				
	As reported in the census of manufactures.....	19,861	797.8	21,171	727.1
	As reported on Census annual Form MA-23A.....	20,166	(NA)	20,908	<sup>1</sup> 727.1
23111 10	Men's suits, excluding ski, snow, slack, wash, and uniform:				
	As reported in the census of manufactures.....	19,389	771.6	20,826	710.5
	As reported on Census annual Form MA-23A.....	19,719	(NA)	20,561	(NA)
23111 70	Men's uniform suits:				
	As reported in the census of manufactures.....	472	26.2	345	16.7
	As reported on Census annual Form MA-23A.....	447	(NA)	<sup>2</sup> 347	(NA)
23112 --	Men's overcoats and topcoats:				
	As reported in the census of manufactures.....	4,460	132.6	4,836	121.8
	As reported on Census annual Form MA-23A.....	4,524	(NA)	5,451	<sup>1</sup> 113.6
23112 10	Men's overcoats, topcoats, and tailored car and suburban coats, except uniform:				
	As reported in the census of manufactures.....	3,679	100.0	4,393	112.5
	As reported on Census annual Form MA-23A.....	3,880	(NA)	4,269	(NA)
23112 70	Men's uniform overcoats and topcoats:				
	As reported in the census of manufactures.....	781	32.6	443	9.2
	As reported on Census annual Form MA-23A.....	644	(NA)	<sup>2</sup> <sup>3</sup> 1,182	(NA)
23113 --	Men's tailored dress and sport coats and jackets:				
	As reported in the census of manufactures.....	17,845	384.2	11,805	214.6
	As reported on Census annual Form MA-23A.....	17,791	(NA)	11,183	<sup>1</sup> 220.1
23113 10	Men's tailored dress and sport coats and jackets, including tailored leisure jackets, except uniform:				
	As reported in the census of manufactures.....	13,662	314.7	11,119	197.8
	As reported on Census annual Form MA-23A.....	13,726	(NA)	11,183	(NA)
23113 70	Men's separate tailored uniform coats and jackets:				
	As reported in the census of manufactures.....	4,183	69.5	686	16.8
	As reported on Census annual Form MA-23A.....	4,065	(NA)	( <sup>3</sup> )	(NA)
23114 --	Boys' suits, coats, and tailored jackets:				
	As reported in the census of manufactures.....	11,315	114.1	10,715	102.6
	As reported on Census annual Form MA-23A.....	11,639	(NA)	10,681	94.9
23114 10	Boys' suits, including uniform:				
	As reported in the census of manufactures.....	5,850	55.3	6,115	57.0
	As reported on Census annual Form MA-23A.....	5,961	(NA)	<sup>2</sup> 6,012	(NA)
23114 30	Boys' coats, overcoats, and tailored suburban and car coats including uniform:				
	As reported in the census of manufactures.....	1,124	13.0	1,117	10.1
	As reported on Census annual Form MA-23A.....	1,161	(NA)	<sup>2</sup> 1,077	(NA)
23114 50	Boys' tailored sport coats and jackets, including uniform:				
	As reported in the census of manufactures.....	4,341	45.8	<sup>2</sup> 3,483	35.6
	As reported on Census annual Form MA-23A.....	4,517	(NA)	<sup>2</sup> 3,592	(NA)
23110 00	Men's and boys' suits, coats, and overcoats, n.s.k. (Represents companies with 10 or more employees).....	(X)	67.5	(X)	29.3
23110 02	Men's and boys' suits, coats, and overcoats, n.s.k. (Represents companies with less than 10 employees).....	-	8.7		
23119 11	Receipts for contract work on men's and boys' suits, tailored sport and dress coats, overcoats, and jackets done for others on their materials <sup>4</sup> .....	(X)	280.7		
				(X)	251.6
Product code	Product	Total units cut (1,000 units)			
		1967		1963	
	(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A APPAREL)				
23111 --	Men's suits except uniform, ski, and snow, total.....			19,719	20,561
23111 13	Men's regular-weight suits, total.....			12,987	13,151
	By price:				
23111 22	Priced under \$28 per unit.....			1,531	11,179
23111 24	Priced from \$28 to \$49.99 per unit.....			1,977	
23111 26	Priced from \$35 to \$49.99 per unit.....			5,446	
23111 28	Priced from \$50 and over per unit.....			1,971	
23111 29	Priced line, n.s.k.....			11,062	(X)
	By fabric:				
23111 41	Made from all wool.....			7,235	13,151
23111 42	Made from wool blends.....			3,036	
23111 44	Made from fabrics except all wool or wool blends.....			584	
23111 43	Fabric, n.s.k.....			2,132	
					(X)

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total units cut (1,000 units)	
		1967	1963
(AS REPORTED ANNUALLY ON CENSUS FORM MA23A APPAREL)--Continued			
23111 --	Men's suits except uniform, ski, and snow--Continued		
23111 17	Men's lightweight suits, total.....	6,732	7,410
	By price:		
23111 32	Priced under \$28 per unit.....	1,621	6,882
23111 34	Priced from \$28 to \$34.99 per unit.....	1,002	
23111 36	Priced from \$35 to \$49.99 per unit.....	1,924	
23111 38	Priced from \$50 and over per unit.....	868	
23111 39	Price line, n.s.k.....	1,317	528 (X)
	By fabric:		
23111 46	Made from all wool.....	826	7,410
23111 47	Made from wool blends.....	3,132	
23111 48	Made from fabrics except all wool or wool blends.....	1,462	
23111 49	Fabric, n.s.k.....	1,312	
23111 64	Men's uniform suits, total.....	447	(X)
23111 65	Made under State and/or Federal Government contract.....	63	347
23111 67	All other tailored uniform suits.....	384	
23111 68	Men's and boys' uniform suits, n.s.k.....	9	(X)
23114 11	Boys' suits, except wash suits, including uniform suits, total.....	5,961	6,012
23114 21	Wool.....	1,321	6,012
23114 23	Wool blends.....		
23114 29	All other fabric.....		
23114 93	Fabric, n.s.k.....		
23112 --	Overcoats, topcoats, and tailored car and suburban coats, and stormcoats, including uniform:		
23112 13	Men's overcoats, except uniform.....	332	319
23112 15	Men's topcoats, except uniform, total.....	1,762	2,429
23112 16	All wool.....	779	2,429
23112 17	Wool blends.....	302	
23112 18	Fabrics except all wool or wool blends.....	393	
23112 19	Fabric, n.s.k.....	288	
23112 76	Men's uniform overcoats and topcoats, total.....	644	<sup>2</sup> <sup>3</sup> 1,181
23112 77	Made under State and/or Federal Government contract.....	594	771
23112 78	All other uniform overcoats and topcoats.....	50	410
23112 25	Men's tailored suburban and car coats, including stormcoats.....	1,786	1,521
23114 14	Boys' tailored overcoats, topcoats, car, suburban, and stormcoats, total.....	1,161	1,077
23114 33	Wool and wool blends.....	1,161	1,077
23114 35	Fabrics other than wool and wool blends.....		
23113 12	Men's tailored separate suit type dress and sport coats except uniform, total.....	13,726	11,183
	By price:		
23113 03	Priced under \$16 per unit.....	3,171	(NA)
23113 05	Priced from \$16 to \$23.99 per unit.....	4,139	
23113 07	Priced from \$24 and over per unit.....	4,380	
23113 19	Priced, n.s.k.....	2,036	
	By fabric:		
23113 21	Made from all wool.....	3,960	4,604
23113 23	Made from wool blends.....	4,892	2,989
23113 29	Made from fabrics except all wool or wool blends.....	2,747	3,590
23113 39	Fabric, n.s.k.....	2,127	(X)
23113 76	Men's uniform separate coats and jackets, total.....	4,065	( <sup>3</sup> )
23113 77	Made under State and/or Federal Government contract.....	3,551	( <sup>3</sup> )
23113 78	All other uniform coats and jackets.....	514	( <sup>3</sup> )
23114 19	Boys' tailored suit type separate dress and sport coats, including uniform, total.....	4,517	<sup>2</sup> 3,592
23114 43	Wool and wool blends.....	1,635	<sup>2</sup> 3,592
23114 45	Fabrics other than wool and wool blends.....	2,017	
23114 88	Fabric, n.s.k.....	865	

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

FOOTNOTES FOR TABLE 3--INDUSTRY 2311

Note: Quantity data collected on Census Annual Form MA-23A represent cuttings rather than shipments. Differences between the data collected in the Census of Manufactures and the Current Annual Apparel Survey, MA-23A, are discussed in the text. More detailed cuttings are shown in table 3B.

(NA) Not available. n.s.k. Not specified by kind. <sup>r</sup>Revised. (X) Not applicable.

<sup>1</sup>For 1963, value of shipments data were not collected separately in the Annual Apparel Survey for men's and boys' uniform garments, but were included with the value of shipments for each related nonuniform category.

<sup>2</sup>For 1963, the quantity data for boys' tailored uniform clothing are included with men's tailored uniform clothing.

<sup>3</sup>For 1963, men's and boys' separate tailored uniform coats and jackets are included with men's uniform overcoats and topcoats.

<sup>4</sup>Contract receipts are not included in the total shown for men's and boys' suits, coats, and overcoats. Contract receipts include all receipts for work on men's and boys' suits, tailored sport and dress coats, overcoats, and jackets done for others on their materials regardless of the industry classification of the establishment.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2311.--MEN'S AND BOYS' SUITS AND COATS				
	Materials, containers, and supplies, total.....	(X)	556.5	(X)	482.3
	Broadwoven fabrics, total.....	<sup>e</sup> 257.9	389.2	258.2	403.5
220124	Suiting and coating piece goods, excluding linings.....	<sup>e</sup> 112.0	300.7	127.9	333.6
220125	All other piece goods, including linings.....	145.9	88.5	130.4	70.0
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	3.8	1.9	2.9
970099	All other materials, containers, and supplies.....	(X)	50.6	(X)	43.1
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	(X)	112.9	(X)	32.7

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2311, these small establishments accounted for approximately 0.3 percent of payrolls and 0.3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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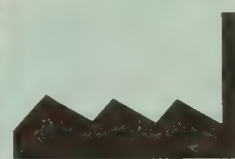
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POSTAGE AND FEES  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-23A-2

## INDUSTRY SERIES

### Men's and boys' shirts and nightwear

SIC Code 2321

preliminary  
report

The Men's, Youths', and Boys' Shirts (Except Work Shirts), Collars, and Nightwear Industry includes establishments primarily engaged in manufacturing men's, youths', and boys' shirts (including polo and sports shirts), collars, and nightwear, cut and sewed from purchased woven or knit fabric. Establishments primarily engaged in manufacturing work shirts are classified in industry 2328. Knitting mills primarily engaged in manufacturing nightwear are classified in industry 2254.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Men's and Boys' Shirts and Nightwear Industry amounted to \$1,439.1 million, an increase of 11.1 percent compared with 1963. Value added by manufacture at \$698.4 million in 1967 was 16.5 percent more than value added in 1963. Average employment in the industry showed an increase of 0.5 percent from 1963 to a total of 113.5 thousand employees in 1967.

Of the \$1,439.1 million total value of shipments and other receipts of establishments classified as men's and boys' shirts and nightwear manufacturers, \$101.2 million were products primary to other industries; and \$305.5 million were receipts for miscellaneous activities. The

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (per-cent)	Coverage ratio (per-cent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2321.—MEN'S AND BOYS' SHIRTS AND NIGHTWEAR													
1967 Census....	763	565	113.5	385.1	103.1	187.9	319.9	698.4	748.7	1,439.1	14.5	229.5	82	80
1966 ASM <sup>1</sup> .....	(NA)	(NA)	113.0	365.7	102.8	190.7	310.0	613.2	776.6	1,348.1	14.3	231.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	111.8	343.1	102.6	192.6	291.9	594.8	743.2	1,285.4	11.5	227.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	114.3	355.7	104.1	194.4	296.4	597.2	703.6	1,294.4	7.8	209.6	(NA)	(NA)
1963 Census....	832	564	112.9	316.3	104.0	191.6	273.8	599.4	712.9	1,295.1	8.8	211.0	85	81
1962 ASM <sup>1</sup> .....	(NA)	(NA)	111.1	311.7	99.2	182.9	255.9	515.6	727.5	1,229.7	7.7	197.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	101.5	274.8	91.4	170.1	224.8	473.1	664.5	1,135.2	*5.8	175.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	103.9	278.4	94.0	172.9	226.8	473.8	684.0	1,155.4	5.5	177.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	103.8	267.5	95.0	176.1	223.3	458.7	583.3	1,137.4	(S)	156.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	891	614	103.9	254.9	94.9	169.5	210.9	423.1	546.2	969.9	5.7	141.1	90	82

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

industry shipments of primary products represented 82 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 85 percent in 1963.

The total value of men's and boys' shirts and nightwear shipped by all producers in 1967 was \$1,292.4 million of which \$1,032.4 million, or 80 percent, were shipped by plants classified in industry 2321, Men's and Boys' Shirts and Night-

wear, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 81 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2321, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Annual Apparel.

The data vary as a result of reporting differences for individual plants furnishing data in both surveys.



## 1967 CENSUS OF MANUFACTURES

3

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2321.-MEN'S AND BOYS' SHIRTS AND NIGHTWEAR												
United States, total.....	763	565	113.5	385.1	103.1	187.9	319.9	698.4	748.7	1,439.1	14.5	112.9	599.4
New England.....	28	24	4.2	16.4	3.8	6.8	13.0	30.2	46.3	76.3	0.5	4.4	23.7
Middle Atlantic.....	295	165	23.9	95.5	21.0	38.1	72.2	199.2	281.4	478.0	3.1	27.0	183.5
New York.....	191	76	8.6	40.9	7.0	13.0	23.8	105.1	208.1	312.4	1.6	8.4	74.7
New Jersey.....	21	17	1.6	5.6	1.4	2.5	4.9	9.7	4.2	13.8	0.4	2.9	32.5
Pennsylvania.....	83	72	13.7	49.0	12.6	22.7	43.9	84.5	69.2	151.8	1.1	15.6	76.4
East North Central....	18	12	2.1	7.7	1.9	3.5	6.1	13.7	15.5	28.9	0.3	2.6	22.2
Indiana.....	4	4	1.1	3.5	1.0	1.9	3.2	5.2	1.8	7.0	0.1	(D)	(D)
West North Central....	23	17	2.8	8.8	2.6	4.5	7.6	19.4	20.3	39.8	0.2	2.6	13.6
South Atlantic.....	164	154	36.6	119.0	33.3	61.8	101.2	198.1	204.0	399.4	5.8	33.9	152.0
Maryland.....	13	12	1.2	4.0	1.1	1.9	3.3	8.1	8.0	16.1	0.1	2.3	13.1
Virginia.....	13	13	2.8	8.1	2.6	4.8	7.4	13.2	3.4	16.9	(D)	3.3	13.2
North Carolina.....	54	51	11.8	37.8	10.9	20.4	32.2	51.0	53.6	103.6	1.3	8.7	30.7
South Carolina.....	34	31	8.4	27.7	7.5	14.1	23.4	49.8	55.8	100.8	1.2	7.5	33.1
Georgia.....	36	35	11.3	38.2	10.3	18.9	32.0	71.1	80.2	154.2	2.8	10.9	57.6
Florida.....	9	8	0.7	2.2	0.7	1.1	1.9	3.7	3.0	6.4	(2)	0.7	2.7
East South Central....	124	119	35.3	109.4	32.8	59.4	95.7	185.2	130.5	311.5	3.4	35.7	166.2
Kentucky.....	9	9	2.5	10.0	2.3	4.5	7.4	17.3	10.7	28.9	0.4	2.5	12.5
Tennessee.....	44	44	14.9	43.5	13.9	24.6	38.3	71.8	68.2	133.5	0.8	16.0	80.9
Alabama.....	42	38	10.5	33.1	9.8	17.6	29.4	66.1	41.3	108.5	1.2	8.8	39.9
Mississippi.....	29	28	7.4	22.8	6.8	12.7	20.7	30.0	10.3	40.5	1.0	8.3	32.9
West South Central....	23	22	4.3	12.1	4.0	6.9	10.9	24.2	19.7	44.1	0.6	2.7	12.1
Arkansas.....	12	12	2.9	8.0	2.7	4.5	7.4	17.7	13.2	32.1	(D)	1.6	6.8
Mountain.....	7	4	0.6	1.9	0.6	1.1	1.6	3.2	1.9	5.1	0.1	0.3	1.7
Pacific.....	81	48	3.7	14.3	3.1	5.8	11.0	26.1	29.1	55.9	0.4	3.9	24.2
California.....	71	41	3.0	11.8	2.5	4.6	8.8	20.5	21.9	43.1	0.3	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
 (Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozens)	Value (million dollars)	Quantity (1,000 dozens)	Value (million dollars)
2321- -- 2253 pt. 2254 pt.	MEN'S AND BOYS' SHIRTS (EXCEPT WORK SHIRTS) AND NIGHTWEAR, TOTAL.....	(X)	1,292.4	53,083	1,114.6
23212 -- 22532 pt.	Men's and boys' knit outerwear sport shirts, including sweat shirts:				
	As reported in the census of manufactures.....	17,099	310.1	13,391	206.9
22532 10	Made in knitting mills.....	8,876	160.6	7,876	123.6
23212 00	Made in cut-and-sew shops.....	8,223	149.5	5,515	83.3
	As reported on Census annual Form MA-23A.....	17,388	(NA)	13,134	198.1
23214 --	Men's and boys' woven dress and sport shirts, including uniform:				
	As reported in the census of manufactures.....	<sup>3</sup> 29,378	842.0	34,786	794.4
	As reported on Census annual Form MA-23A.....	32,001	(NA)	<sup>1</sup> 33,493	773.9
23214 10	Men's:				
	As reported in the census of manufactures.....	(NA)	(NA)	26,519	661.0
	As reported on Census annual Form MA-23A (For 1963 excludes uniform).	24,177	(NA)	25,143	(NA)
2321420	Boys':				
	As reported in the census of manufactures.....	(NA)	(NA)	8,267	133.4
	As reported on Census annual Form MA-23A.....	7,824	(NA)	7,503	(NA)
23215-- 22541 pt.	Men's and boys' nightwear:				
	As reported in the census of manufactures.....	3,752	90.8	4,238	95.2
	As reported in Census annual Form MA-23A.....	4,052	(NA)	4,235	99.2
	Men's and boys' nightwear made from knit fabrics:				
	As reported on the census of manufactures.....	( <sup>4</sup> )	( <sup>3</sup> )	483	9.3
2254120	Made in knitting mills.....	341	7.2	371	6.5
	Made in cut and sew shops.....	( <sup>4</sup> )	( <sup>3</sup> )	112	2.8
	As reported on Census annual Form MA-23A.....	550	(NA)	481	(NA)
	Men's and boys' nightwear made from woven fabrics:				
2321520	As reported in the census of manufactures.....	<sup>4</sup> 3,411	<sup>3</sup> 83.6	3,755	85.8
	As reported on Census annual Form MA-23A.....	2,386	(NA)	3,754	(NA)
2321500	Men's and boys' nightwear, n.s.k.:				
	As reported on Census annual Form MA-23A.....	1,116	(NA)	(X)	(X)
2321000	Men's and boys' shirts (except work shirts) and nightwear, n.s.k. (Represents principally establishments with 10 employees or more in 1967. See Note.).....	(X)	43.5	<sup>2</sup> 668	18.1
2321002	Men's and boys' shirts (except work shirts) and nightwear, n.s.k. (Represents principally establishments with fewer than 10 employees in 1967. See Note.).....	(X)	6.0		
2321911	Receipts for contract work on men's dress and sport shirts, collars and nightwear done for others on their materials.....	(X)	<sup>5</sup> 256.3	(X)	<sup>5</sup> 192.9
Product code	Product	Total cuttings (1,000 dozens)			
				1967	1963
	(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A APPAREL)				
2321211	Men's knit outerwear sport shirts, total.....			6,198	3,731
2321205	Chiefly cotton.....			3,813	2,935
2321207	Chiefly manmade (nylon, acrylic, rayon, etc.).....			1,413	740
2321209	Fabrics except chiefly cotton or chiefly manmade.....			972	56
	Fabric, n.s.k.....				(X)
2321218	Men's sweat shirts.....			3,298	2,628
2321225	Boys' knit outerwear sport shirts except sweat shirts, total.....			6,323	5,412
2321221	Chiefly cotton.....			3,151	5,273
2321223	Chiefly manmade (nylon, acrylic, rayon, etc.).....			489	139
2321224	Fabrics except chiefly cotton and chiefly manmade.....			2,683	(X)
	Fabric, n.s.k.....				
2321228	Boys' sweat shirts.....			1,569	1,363

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total cuttings (1,000 dozens)	
		1967	1963
	(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A APPAREL)--Continued		
23214--	Shirts, including uniform, but excluding work shirts, total.....	32,001	33,493
2321417	Men's dress and business shirts, total.....	10,282	9,179
2321418	Chiefly cotton.....	4,805	9,179
2321419	Fabrics except chiefly cotton.....	4,442	
2321478	Fabric, n.s.k.....	1,035	
2321407	Men's sport shirts except knit outerwear sport shirts, total.....	12,553	15,964
2321403	Chiefly cotton.....	6,222	13 178
2321404	Chiefly manmade (nylon, acrylic, rayon, etc.).....	4,612	
2321409	Fabrics except chiefly cotton or chiefly manmade fibers.....	514	
2321479	Fabric, n.s.k.....	1,205	
	Men's uniform shirts, total.....	1,236	<sup>6</sup> 847
2321434	Made under State and/or Federal Government contract.....	614	(X)
2321431	Cotton and cotton blends.....	614	(X)
2321433	Other fabric.....		
2321436	All other uniform shirts.....	622	(X)
2321488	Men's and boys' uniform shirts, n.s.k.....	106	(X)
2321427	Boys' dress shirts, including uniform, total.....	1,564	<sup>7</sup> 1,410
2321421	Chiefly cotton.....	840	1,410
2321422	Fabrics except chiefly cotton.....	684	
2321489	Fabric, n.s.k.....	40	
2321428	Boys' sport shirts, total.....	6,260	6,093
2321423	Chiefly cotton.....	2,384	5,863
2321424	Chiefly manmade (nylon, acrylic, rayon, etc.).....	2,002	
2321426	Fabrics except chiefly cotton and chiefly manmade.....	278	
2321499	Fabric, n.s.k.....	1,596	
23215--	Pajamas and other nightwear, total.....	4,052	3,754
2321511	Men's, total.....	2,682	2,589
	By construction:		
2321514	Woven fabric.....	1,737	2,589
2321515	Knit fabric.....	239	
2321578	Construction, n.s.k.....	706	
	By fabric:		
2321516	Chiefly cotton.....	1,665	2,589
2321517	Fabrics except chiefly cotton.....	206	
2321579	Fabric, n.s.k.....	811	
2321512	Boys', total.....	1,370	1,165
	By construction:		
2321522	Woven fabric.....	649	1,165
2321524	Knit fabric.....	311	
2321588	Construction, n.s.k.....	410	
	By fabric:		
2321526	Chiefly cotton.....	990	1,165
2321528	Fabrics except chiefly cotton.....	63	
2321589	Fabric, n.s.k.....	317	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. (X) Not applicable.

<sup>1</sup>Includes 847 thousand dozen men's and boys' uniform shirts not included in the detail shown for men's and boys' woven dress and sport shirts.

<sup>2</sup>Quantity for this item was estimated based on the unit price relationship for all other items noted as products of Industry 2321.

<sup>3</sup>For 1967, separate data were collected for men's and boys' woven dress and sport shirts. However, due to a large number of respondents that misclassified their shipments between men's and boys' it was necessary to combine the information.

<sup>4</sup>Data for men's and boys' nightwear made from knit fabrics in cut-and-sew shops are included with men's and boys' nightwear made from woven fabrics. This is primarily the result of a large number of respondents that misclassified their shipments between woven and knit fabric construction.

<sup>5</sup>Contract receipts are not included in the total shown for products of this industry.

<sup>6</sup>For 1963, data include both men's and boys' uniform shirts.

<sup>7</sup>Figures for 1963 exclude an unknown quantity of boys' uniform shirts.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2321.--MEN'S AND BOYS' SHIRTS AND NIGHTWEAR				
	Materials, containers, and supplies, total.....	(X)	515.8	(X)	510.5
	Broadwoven fabrics, total.....	685.8	345.7	853.3	391.2
220124	Suiting and coating piece goods, excluding linings.....	e 685.8	345.7	23.8	21.4
220125	All other piece goods, including linings.....			829.5	369.8
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	e 95.8	73.3	75.1	47.0
970099	All other materials, containers, and supplies.....	(X)	50.6	(X)	48.7
976000	Materials, containers, and supplies, n.s.k.....	(X)	46.2	(X)	23.6

<sup>e</sup>From 10 to 30 percent of this figure was estimated.

n.s.k. Not specified by kind.

(X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2321, these small establishments accounted for approximately 0.2 percent of payrolls and 0.3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

## preliminary report

### Men's and boys' underwear SIC Code 2322

The Men's, Youths', and Boys' Underwear Industry includes establishments primarily engaged in manufacturing men's, youths', and boys' underwear cut and sewed from purchased woven or knit fabric. Knitting mills primarily engaged in manufacturing underwear are classified in industry 2254.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Men's and Boys' Underwear Industry amounted to \$183.6 million, an increase of 36.0 percent compared with 1963. Value added by

manufacture at \$83.3 million in 1967 was 31.8 percent more than value added in 1963. Average employment in the industry showed an increase of 13.6 percent from 1963 to a total of 13,7 thousand employees in 1967.

Of the \$183.6 million total value of shipments and other receipts of establishments classified as underwear producers, \$12.6 million were products primary to other industries; and \$11.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 93 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2322,--MEN'S AND BOYS' UNDERWEAR														
1967 Census....	88	69	13.7	45.5	12.8	23.5	39.3	83.3	106.3	183.6	6.1	27.5	93	35
1966 ASM <sup>1</sup> .....	(NA)	(NA)	13.8	45.4	13.2	25.8	40.4	79.8	102.9	181.6	*2.2	27.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	13.1	40.6	12.4	23.6	35.7	68.8	93.7	159.7	*1.0	24.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	12.1	35.9	11.5	22.2	31.5	58.5	83.5	144.6	*1.1	18.7	(NA)	(NA)
1963 Census....	80	63	12.1	32.6	11.3	20.8	28.1	63.2	74.9	134.9	1.1	22.5	89	31
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*16.6	*44.8	*15.0	*27.5	*37.4	*76.2	*94.8	*172.7	*2.0	*28.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*16.2	*42.3	*15.0	*26.7	*36.0	*70.7	*94.5	*164.9	*1.1	*30.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*16.2	*43.0	*14.9	*26.3	*36.4	*61.6	*88.1	*155.7	*0.7	*35.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*12.8	*32.2	*11.8	*20.9	*27.1	*52.4	*73.5	*124.8	*1.2	*26.7	(NA)	(NA)
1958 Census <sup>2</sup> ...	90	72	11.0	26.6	9.9	17.5	22.0	41.7	61.7	102.7	0.5	25.6	86	30

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

The total value of men's and boys' underwear shipped by all producers in 1967 was \$449.6 million of which \$159.1 million, or 35 percent, were shipped by plants classified in industry 2322, Men's and Boys' Underwear, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 31 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2322, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Apparel Survey.

During the review of the 1967 Census of Manufactures it was discovered that some companies were not included on the annual report. These companies have been added to the 1968 Apparel Survey and revised data will be shown for 1967 and 1968 in the 1968 Apparel Survey.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2322, --MEN'S AND BOYS' UNDERWEAR												
United States, total.....	88	69	13.7	45.5	12.8	23.5	39.3	83.3	106.3	183.6	6.1	12.1	63.2
Northeast.....	34	21	1.9	6.2	1.6	3.0	5.0	10.1	14.8	24.2	(D)	(D)	(D)
New York.....	13	5	0.4	1.1	0.3	0.6	0.8	2.3	6.2	8.6	(D)	0.5	1.9
South.....	41	38	9.9	31.8	9.2	17.0	27.8	61.1	74.9	130.4	(D)	(D)	(D)
South Atlantic.....	29	27	6.3	20.0	5.9	10.8	18.1	36.4	46.7	78.4	(D)	(D)	(D)
North Carolina ...	17	16	3.3	10.1	3.1	5.5	9.5	22.5	28.8	46.5	0.5	3.0	14.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (dozens)	Value (million dollars)	Quantity (dozens)	Value (million dollars)
2254 pt.	MEN'S AND BOYS' UNDERWEAR:				
2322- --	As reported in the census of manufactures.....	65,700	449.6	(X)	350.1
	As reported on Census Annual Form MA-23A <sup>1</sup> .....	62,386	(NA)	50,815	321.4
	Men's and boys' underwear made from knit fabric:				
	As reported in the census of manufactures.....	53,686	372.9	(X)	280.7
22541 10	Made in knitting mills.....	36,765	260.7	(X)	213.5
23221 10	Made in cut-and-sew shops.....	16,921	112.2	12,054	67.2
	As reported on Census Annual Form MA-23A <sup>1</sup> .....	50,558	(NA)	<sup>2</sup> 40,758	(NA)
	Undershirts, total.....	27,993	(NA)	21,326	(NA)
23221 31	Heavy and mediumweight, including balbriggan.....	872	(NA)	788	(NA)
	Lightweight with 1/4 sleeve, including T shirt used as undershirt, total.....	22,344	(NA)	15,758	(NA)
23221 34	Men's.....	16,834	(NA)	11,683	(NA)
23221 35	Boys'.....	5,510	(NA)	4,075	(NA)
	Sleeveless athletic type, total.....	4,777	(NA)	4,780	(NA)
23221 36	Men's.....	4,120	(NA)	4,039	(NA)
23221 37	Boys'.....	657	(NA)	741	(NA)
	Drawers, total.....	1,831	(NA)	1,728	(NA)
	Drawers, except supporter type, total.....	1,197	(NA)	1,061	(NA)
23221 42	Thermal knit.....	919	(NA)	1,061	(NA)
23221 43	Other knit.....	278	(NA)		
23221 45	Supporter-type, including half-, knee-, and full-length.....	634	(NA)	667	(NA)
	Shorts and briefs, total.....	20,764	(NA)	17,113	(NA)
23221 51	Shorts (loose-leg, not supporter-type).....	850	(NA)	863	(NA)
	Briefs, supporter-type, total.....	19,914	(NA)	16,250	(NA)
23221 55	Men's.....	12,232	(NA)	9,131	(NA)
23221 57	Boys'.....	7,682	(NA)	7,119	(NA)
	Men's and Boys' underwear made from woven fabric:				
23221 40	As reported in the census of manufactures.....	11,794	75.4	10,099	65.2
	As reported on Census Annual Form MA-23A.....	11,828	(NA)	<sup>3</sup> 10,057	(NA)
23221 16	Men's, total.....	11,371	(NA)	9,600	(NA)
	Chiefly cotton.....	6,196	(NA)		
	Fabric except chiefly cotton.....	423	(NA)		
	Fabric, n.s.k.....	4,752	(NA)		
23221 18	Boys', total.....	457	(NA)	457	(NA)
	Chiefly cotton.....	457	(NA)	457	(NA)
	Fabric except chiefly cotton.....		(NA)		
23220 00	Men's and boys' underwear, n.s.k. (For companies with 10 or more employees. See Note.).....	132	0.9	761	4.2
23220 02	Men's and boys' underwear, n.s.k. (For companies with less than 10 employees. See Note.).....	88	0.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1968 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>The MA-23A data represents quantity of production rather than quantity of shipments. The difference noted between data collected in the census of manufactures and the apparel study is due to the omission of several plants from the annual survey.

<sup>2</sup>The detailed figures shown below exclude men's and boys' union suits reported in 1963 at 458 (000) dozen, and men's and boys' knit underwear made from all other knit fabrics reported at 133 (000) dozen. These data are however shown in the aggregate.

<sup>3</sup>Data for 1963 are as published in Current Industrial Reports Series MA-23A, Apparel Survey 1964, published on February 7, 1966.

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2322.--MEN'S AND BOYS' UNDERWEAR				
	Materials, containers, and supplies, total.....	(X)	95.5	(X)	69.8
	Broadwoven fabrics, total.....	70.4	23.2	69.5	21.1
220124	Suiting and coating piece goods, excluding linings.....	-	-	0.5	0.7
220125	All other piece goods, including linings.....	70.4	23.2	68.9	20.4
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	57.4	76.1	34.8
970099	All other materials, containers, and supplies.....	(X)	13.8	(X)	12.4
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	(X)	1.1	(X)	1.4

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2322, these small establishments accounted for approximately 0.2 percent of payrolls and 0.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

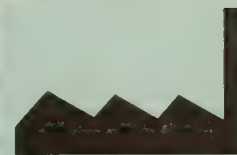
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Men's and boys' neckwear

SIC Code 2323

**preliminary  
report**

The Men's, Youths', and Boys' Neckwear Industry includes establishments primarily engaged in manufacturing men's, youths', and boys' neckties, scarfs, and mufflers, cut and sewed from purchased woven or knit fabric. Knitting mills primarily engaged in manufacturing neckties, scarfs, and mufflers are classified in industry 2253.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Men's and Boys' Neckwear Industry amounted to \$144.7 million, an increase of 19.3 percent com-

pared with 1963. Value added by manufacture at \$69.4 million in 1967 was 19.3 percent more than value added in 1963. Average employment in the industry showed a decrease of 6.8 percent from 1963 to a total of 7.8 thousand employees in 1967.

Of the \$144.7 million total value of shipments and other receipts of establishments classified in the Men's and Boys' Neckwear Industry, \$3.4 million were products primary to other industries; and \$16.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
	INDUSTRY 2323.--MEN'S AND BOYS' NECKWEAR													
1967 Census....	297	113	7.8	37.3	6.6	11.3	23.5	69.4	75.6	144.7	0.8	16.0	97	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	7.6	35.2	6.4	12.0	22.4	64.9	94.1	157.7	*1.3	16.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	7.6	33.5	6.3	12.3	22.1	63.2	89.3	150.4	*1.2	15.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	8.8	33.3	7.1	11.4	20.9	56.8	67.5	125.7	*0.1	12.1	(NA)	(NA)
1963 Census....	341	117	8.4	30.9	6.9	12.0	20.6	58.1	62.7	121.3	0.5	13.7	98	98
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*9.2	*33.4	*7.5	*12.3	*20.9	*60.5	*69.4	*129.7	(Z)	*10.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*8.3	*29.3	*6.7	*11.5	*18.9	*50.0	*64.0	*114.1	(Z)	*8.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*8.4	*29.3	*6.8	*11.7	*18.9	*53.3	*61.1	*113.5	(S)	*8.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*7.9	*28.0	*6.4	*11.1	*17.4	*48.9	*62.0	*111.2	(S)	*10.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	362	111	7.7	26.8	6.2	10.8	17.5	48.9	53.2	*102.4	0.6	11.3	97	98

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. (Z) Less than \$50 thousand.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 9 and 6, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of men's and boys' neckwear shipped by all producers in 1967 was \$129.0 million of which \$124.4 million, or 96 percent, were shipped by plants classified in industry 2323, Men's, and Boys' Neckwear, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 98 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2323.--MEN'S AND BOYS' NECKWEAR												
United States, total.....	297	113	7.8	37.3	6.6	11.3	23.5	69.4	75.6	144.7	0.8	8.4	58.1
Northeast.....	213	75	4.6	22.6	3.9	6.7	15.0	42.8	50.4	92.9	0.5	5.6	39.1
New York.....	154	48	3.0	15.8	2.4	4.3	10.0	31.8	39.0	70.6	(D)	3.8	30.5
Pennsylvania.....	20	9	0.6	2.6	0.5	0.9	1.9	3.8	3.8	7.6	(D)	0.7	3.2
East North Central....	14	7	0.5	1.9	0.4	0.6	1.1	3.5	6.1	9.9	(D)	(D)	(D)
West North Central....	7	5	0.3	1.2	0.2	0.4	0.7	2.4	3.4	5.8	(D)	(D)	(D)
South.....	26	14	1.6	7.7	1.3	2.3	4.2	13.4	9.4	22.6	0.1	(D)	(D)
Maryland.....	7	5	0.3	1.2	0.2	0.3	0.8	1.9	2.5	4.3	(D)	0.3	1.7
West.....	37	12	0.8	3.9	0.7	1.2	2.6	7.2	6.4	13.4	0.1	(D)	(D)
California.....	28	10	0.6	2.7	0.5	0.8	1.8	5.3	5.0	10.1	(Z)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(2) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2323- --	MEN'S AND BOYS' NECKWEAR, TOTAL.....	1,000 Doz.....	(X)	129.0	11,173	105.6
23230 --	Men's, youths' and boys' neckwear:					
	Neckties made from woven fabrics.....	...do.....	7,360	98.5	8,899	84.7
23230 21	All silk.....	...do.....	<sup>e</sup> 2,263	44.5	2,479	35.9
23230 25	All rayon and or/acetate.....	...do.....	2,122	17.9	3,762	26.4
23230 27	All polyester.....	...do.....	1,830	21.1	842	8.4
23230 29	All other fabrics, including blends.....	...do.....	<sup>e</sup> 1,203	15.0	1,816	14.0
23230 49	All other men's and boys' neckwear including knit neckties and knit or woven mufflers or scarfs.....	...do.....	<sup>e</sup> 425	4.5	456	3.7
23230 00	Men's and boys' neckwear, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	20.6	1,818	17.2
23230 02	Men's and boys' neckwear, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	5.4		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2323.--MEN'S AND BOYS' NECKWEAR				
	Materials, containers, and supplies, total.....	(X)	62.9	(X)	52.0
220126	Broadwoven fabrics (piece goods), including linings.....	(NA)	38.2	<sup>r</sup> 19.6	30.3
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	( <sup>1</sup> )	0.8	0.7
970099	All other materials, containers, and supplies.....	(X)	5.8	(X)	4.7
976000	Materials, containers, and supplies, n.s.k.....	(X)	18.9	(X)	16.2

(NA) Not available. n.s.k. Not specified by kind. <sup>r</sup>Revised. (X) Not applicable.

<sup>1</sup>Combined with "All other materials, containers, and supplies" to avoid disclosing the operations of individual companies.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2323, these small establishments accounted for approximately 4.0 percent of payrolls and 4.3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE  
Bureau of the Census**

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Men's and boys' separate trousers

SIC Code 2327

**preliminary  
report**

The Men's, Youths', and Boys' Separate Trousers Industry includes establishments primarily engaged in manufacturing men's, youths', and boys' separate trousers and slacks. Establishments primarily engaged in manufacturing complete suits are classified in industry 2311 and work pants in industry 2328.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Men's and Boys' Separate Trousers Industry amounted to \$1,181.6 million, an increase of 43.4 percent compared with 1963. Value added

by manufacture at \$545.2 million in 1967 was 42.3 percent more than value added in 1963. Average employment in the industry showed an increase of 20.6 percent from 1963 to a total of 89.0 thousand employees in 1967.

Of the \$1,181.6 million total value of shipments and other receipts of establishments classified as trouser manufacturers, \$118.7 million were products primary to other industries; and \$273.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 83 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2327.--MEN'S AND BOYS' SEPARATE TROUSERS													
1967 Census....	<sup>3</sup> 693	460	89.0	320.0	81.4	153.0	266.3	545.2	638.3	1,181.6	17.0	182.7	87	82
1966 ASM <sup>1</sup> .....	} (4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
1965 ASM <sup>1</sup> .....														
1964 ASM <sup>1</sup> .....														
1963 Census....	735	423	73.8	224.4	67.9	126.4	186.4	383.1	450.0	824.2	6.2	135.1	83	78
1962 ASM <sup>1</sup> .....	(NA)	(NA)	58.9	175.8	54.5	103.1	147.4	271.6	358.0	625.9	3.6	109.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	55.7	155.8	51.1	94.8	129.0	246.3	303.4	547.5	3.2	86.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	55.2	149.2	50.5	92.0	123.3	220.4	319.0	541.0	3.2	82.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	50.9	141.0	46.9	88.0	117.5	220.4	265.7	479.7	4.2	74.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	748	367	51.6	134.0	47.2	85.3	109.5	209.0	243.4	452.4	4.0	63.9	89	71

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

<sup>4</sup>In addition to the data shown, estimates have been derived and generally published for 1964-1966 from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. However, the 1964-1966 data have been withheld from this preliminary report pending a further review of the published estimates. It is planned to publish such information in the final census reports.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of men's and boys' separate trousers shipped by all producers in 1967 was \$961.8 million of which \$789.7 million, or 82 percent, were shipped by plants classified in industry 2327, Men's and Boys' Separate Trousers, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 78 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2327, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Apparel.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2327.--MEN'S AND BOYS' SEPARATE TROUSERS													
United States, total.....	693	460	89.0	320.0	81.4	153.0	266.3	545.2	638.3	1,181.6	17.0	73.8	383.1
New England.....	22	10	0.9	3.7	0.8	1.4	2.7	6.2	8.8	14.8	0.1	0.9	5.3
Massachusetts.....	17	5	0.6	2.6	0.5	0.9	1.8	4.3	7.1	11.2	(Z)	0.7	4.5
Middle Atlantic.....	275	130	12.9	53.3	11.8	21.5	43.5	92.1	150.1	241.7	1.6	14.0	84.4
New York.....	181	63	4.0	19.2	3.6	6.8	14.2	45.4	119.8	164.7	0.7	4.9	37.5
New Jersey.....	16	10	0.7	2.8	0.7	1.2	2.5	3.4	0.7	4.2	(Z)	0.9	3.2
Pennsylvania.....	78	57	8.1	31.3	7.5	13.5	26.8	43.3	29.6	72.8	0.8	8.3	43.7
East North Central....	44	29	4.1	18.4	3.6	6.8	12.7	35.2	34.2	69.9	0.4	3.7	24.2
Ohio.....	14	10	1.6	6.5	1.4	2.6	4.9	12.2	10.5	22.1	0.1	1.6	8.6
Illionis.....	16	10	0.7	2.9	0.6	1.2	2.2	5.8	7.4	13.6	0.1	0.7	4.2
West North Central....	30	22	3.2	11.0	2.9	5.2	9.2	17.5	16.1	33.2	0.3	3.4	13.7
South Atlantic.....	120	102	21.7	73.8	19.5	36.6	61.4	117.4	104.5	220.6	4.6	16.3	82.7
Maryland.....	25	14	1.2	5.6	0.9	1.7	3.5	8.4	16.2	24.4	0.2	1.3	7.8
Virginia.....	13	12	3.8	12.3	3.6	6.8	11.2	21.1	16.2	37.2	1.1	2.5	11.2
North Carolina.....	10	9	2.3	7.1	2.1	3.4	6.1	12.6	14.3	26.2	0.6	1.2	5.3
Georgia.....	52	51	11.7	39.9	10.6	20.2	33.6	57.2	46.5	102.8	2.2	10.3	53.9
Florida.....	11	8	1.2	4.7	1.0	2.2	3.4	7.5	5.8	14.1	0.1	0.7	3.0
East South Central....	91	88	26.7	87.3	24.7	46.5	76.9	138.5	167.8	308.5	3.5	20.6	88.8
Kentucky.....	8	8	1.8	5.9	1.8	3.3	5.5	8.8	4.0	13.4	0.4	1.5	7.2
Tennessee.....	28	27	9.6	32.1	8.7	16.3	28.1	60.2	87.3	148.6	1.9	5.0	28.2
Alabama.....	20	20	5.7	17.9	5.1	9.3	15.3	24.9	18.4	43.3	0.2	4.9	17.5
Mississippi.....	35	33	9.6	31.4	9.1	17.6	28.0	44.6	58.1	103.2	1.0	9.2	36.0
West South Central....	62	55	16.6	60.8	15.4	29.8	50.3	114.6	131.1	244.2	6.3	12.5	68.9
Arkansas.....	10	9	1.9	6.1	1.8	3.1	5.7	8.8	5.6	14.1	0.2	2.1	5.8
Louisiana.....	7	5	0.8	2.7	0.7	1.4	2.3	3.7	3.0	6.6	(D)	(D)	(D)
Oklahoma.....	7	5	1.4	4.6	1.3	2.6	4.2	6.0	1.7	7.7	0.2	(D)	(D)
Texas.....	38	36	12.5	47.4	11.5	22.5	38.1	96.1	120.8	215.8	(D)	9.0	56.8
Mountain.....	6	5	0.5	1.8	0.5	0.9	1.5	3.4	2.8	6.0	(Z)	(D)	(D)
Pacific.....	43	19	2.7	9.9	2.4	4.5	8.3	20.3	22.9	42.6	0.4	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2327- --	MEN'S AND BOYS' SEPARATE TROUSERS:				
	As reported in the census of manufacturers.....	<sup>1</sup> 226,235	961.8	197,465	692.7
	As reported on Census annual Form MA-23A.....	227,429	(NA)	196,719	678.1
23271 12	Separate trousers, pants, slacks, and short pants, excluding uniform:				
	Men's:				
	As reported in the census of manufactures.....	( <sup>1</sup> )	( <sup>1</sup> )	125,032	488.5
	As reported on Census annual Form MA-23A.....	147,297	(NA)	125,307	(NA)
23271 14	Boys':				
	As reported in the census of manufactures.....	( <sup>1</sup> )	( <sup>1</sup> )	66,935	150.9
	As reported on Census annual Form MA-23A.....	67,121	(NA)	66,993	(NA)
23271 51	Men's and boys' separate uniform trousers:				
	As reported in the census of manufactures.....	( <sup>1</sup> )	( <sup>1</sup> )	5,498	36.9
	As reported on Census annual Form MA-23A.....	13,011	(NA)	4,419	(NA)
2370 00	Men's and boys' separate dress and sport trousers, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	30.8	(X)	16.3
23270 02	Men's and boys' separate dress and sport trousers, n.s.k. (For companies with less than 10 employees.).....	(X)	5.3		
23279 11	Receipts for contract work on separate dress and sport trousers done for others on their materials.....	(X)	226.6	(X)	168.0
Product code	Product	Value (1,000 units)			
		1967		1963	
	AS REPORTED ANNUALLY ON CENSUS ANNUAL FORM MA-23A, APPAREL				
23271 12	Separate trousers, pants, slacks, and short pants, including uniform, total.....			227,429	196,719
	Men's separate dress and sport trousers except uniform, total.....			138,571	116,675
	By price:				
23271 13	Priced under \$4.25 per unit.....			58,623	75,391
23271 15	Priced from \$4.25 to \$8.99 per unit.....			46,949	34,724
23271 17	Priced from \$9 and over per unit.....			10,259	6,560
23271 88	Price line, n.s.k.....			22,740	(X)
	By fabric:				
23271 21	Made from wool and wool blends.....			18,688	20,022
23271 23	Made from cotton and cotton blends (with other than wool).....			50,636	56,429
23271 29	Made from fabrics except wool and wool blends or cotton and cotton blends.....			44,475	40,224
23271 98	Fabric, n.s.k.....			24,772	(X)
	Men's uniform dress trousers, total.....			12,574	<sup>2</sup> 4,419
23271 72	Made under State and/or Federal Government contract.....			9,343	1,400
23271 81	Made from wool and wool blends.....			3,410	1,400
23271 53	Made from cotton and cotton blends (with other than wool).....			5,933	
23271 59	Made from fabrics except wool and wool blends or cotton and cotton blends.....				
23271 73	All other uniform dress trousers.....			3,231	3,019
23271 99	Men's and boys' uniform trousers, n.s.k.....			437	(X)
23271 41	Men's dress shorts, total.....			8,726	8,632
23271 42	Cotton and cotton blends.....			5,545	8,632
23271 43	Fabrics other than cotton or cotton blends.....			2,182	
23271 49	Fabric, n.s.k.....			999	
23271 57	Boys' dress and sport trousers, including uniform, total.....			58,182	<sup>2</sup> 61,255
23271 51	Wool and wool blends.....			1,513	61,255
23271 52	Cotton and cotton blends (with other than wool).....			25,167	
23271 53	Fabrics except wool and wool blends and cotton and cotton blends.....			10,214	
23271 60	Fabric, n.s.k.....			21,288	

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value (1,000 units)	
		1967	1963
	AS REPORTED ANNUALLY ON CENSUS ANNUAL FORM MA-23A, APPAREL--CONTINUED		
	Separate trousers, pants, slacks, and short pants, including uniform--continued		
23271 61	Boys' dress shorts and dress short pants, total.....	8,939	5,738
23271 62	Cotton and cotton blends.....	6,217	5,738
23271 63	Fabrics except cotton and cotton blends.....	1,923	
23271 69	Fabric, n.s.k.....	799	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1967, separate data were collected for men's and boys' trousers and uniform trousers. However, due to a large number of respondents that misclassified their shipments between men's and boys' trousers and uniform trousers it was necessary to combine the information.

<sup>2</sup>For 1963, data on boys' uniform dress and sport trousers were included with men's uniform dress and sport trousers.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2327.--MEN'S AND BOYS' SEPARATE TROUSERS				
	Materials, containers, and supplies, total.....	(X)	456.0	(X)	325.9
	Broadwoven fabrics, total.....	(NA)	323.0	321.5	265.9
220124	Suiting and coating piece goods, excluding linings.....	72.2	90.2	53.0	65.1
220125	All other piece goods, including linings.....	(NA)	233.0	268.5	200.8
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	6.0	1.0	0.9
970099	All other materials, containers, and supplies, consumed.....	(X)	49.0	(X)	34.5
973000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	(X)	78.0	(X)	24.6

(NA) Not available due to inadequate response rate. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2327, these small establishments accounted for approximately 0.4 percent of payrolls and 0.4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

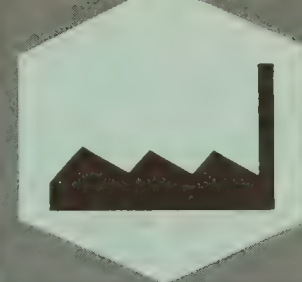
OFFICIAL BUSINESS

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

preliminary  
report

### Men's and boys' work clothing

SIC Code 2328

The Men's, Youths', and Boys' Work Clothing Industry includes establishments primarily engaged in manufacturing men's, youths', and boys' work shirts, pants, and other work clothing and washable service apparel.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Men's and Boys' Work Clothing Industry amounted to \$1,110.5 million, an increase of 34.6 percent compared with 1963. Value added

by manufacture at \$463.0 million in 1967 was 40.0 percent more than value added in 1963. Average employment in the industry showed an increase of 25.4 percent from 1963 to a total of 78.3 thousand employees in 1967.

Of the \$1,110.5 million total value of shipments and other receipts of establishments classified as manufacturers of men's and boys' work clothing, \$168.3 million were products primary to other industries; and \$160.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 82 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 81 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(see appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2328.--MEN'S AND BOYS' WORK CLOTHING													
1967 Census....	464	396	78.3	254.9	72.3	129.6	217.9	463.0	670.1	1,110.5	10.7	212.7	84	88
1966 ASM <sup>1</sup> .....	(NA)	(NA)	73.2	218.8	66.8	122.6	184.1	403.6	655.9	1,051.7	16.4	186.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	71.5	212.8	65.9	121.7	181.1	400.4	616.0	999.1	8.4	179.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	65.2	195.3	60.9	111.4	165.6	344.0	550.6	883.6	8.0	156.3	(NA)	(NA)
1963 Census....	439	353	62.5	179.6	57.6	105.3	149.8	330.7	500.7	824.7	5.8	137.0	81	90
1962 ASM <sup>1</sup> .....	(NA)	(NA)	63.0	172.8	58.3	105.0	144.1	299.1	469.8	768.1	2.8	129.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	60.9	153.2	56.2	97.1	126.8	270.9	436.2	712.6	2.6	122.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	61.2	150.8	56.2	98.0	124.4	271.3	428.5	700.6	2.5	124.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	65.5	165.3	60.7	110.6	139.7	288.7	473.0	760.3	3.1	128.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	500	396	64.8	154.8	59.3	104.5	132.6	255.5	434.8	689.8	3.5	118.1	84	95

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of men's and boys' work clothing shipped by all producers in 1967 was \$885.1 million of which \$781.6 million, or 88 percent, were shipped by plants classified in industry 2328, Men's and Boys' Work Clothing, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 90 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2328, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Annual Apparel Survey. The summary data as collected in the apparel survey and as collected in the census of manufactures are shown in table 3.

The variation in the two sets of data is caused by reporting differences for a number of plants reporting in both surveys. Comparison of estimated figures with actual reported data for the same establishment, and the omission of a few major cutters from the annual MA-23A survey. These missing plants are being added to the MA-23A survey for 1968, and revised data for 1967 will be included in the 1968 apparel study.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2328.--MEN'S AND BOYS' WORK CLOTHING												
United States, total.....	464	396	78.3	254.9	72.3	129.6	217.9	463.0	670.1	1,110.5	10.7	62.5	330.7
New England.....	17	11	0.7	2.8	0.6	1.0	2.2	5.4	13.8	18.8	(D)	0.6	4.3
Massachusetts.....	9	5	0.3	1.4	0.3	0.5	1.0	2.8	8.3	10.9	(D)	(D)	(D)
Middle Atlantic.....	53	29	3.0	11.5	2.7	4.7	8.7	20.2	42.4	60.7	0.5	3.4	23.2
New York.....	28	10	0.8	3.9	0.7	1.2	2.0	9.7	33.2	42.1	0.2	0.8	6.6
North Central:													
Indiana.....	15	12	2.3	8.2	2.2	4.0	7.1	12.4	18.7	29.9	0.5	2.8	15.4
Missouri.....	33	27	4.4	14.1	4.2	7.4	12.8	23.4	14.3	37.6	0.6	4.0	21.0
South Atlantic.....	96	91	16.0	52.2	14.7	26.7	43.5	86.5	112.0	194.8	(D)	13.7	68.8
Maryland.....	11	10	0.7	2.5	0.6	1.1	2.0	4.7	8.3	13.1	(Z)	0.8	3.6
North Carolina.....	21	21	4.2	14.2	3.8	6.6	11.2	19.6	21.9	41.0	0.6	3.0	13.8
Georgia.....	38	36	7.3	23.7	6.7	12.9	20.1	37.7	53.6	89.7	0.9	5.5	29.9
Florida.....	5	4	0.3	0.7	0.3	0.4	0.6	1.0	1.0	2.1	(D)	(D)	(D)
East South Central....	118	115	28.4	86.9	26.6	48.1	77.9	137.6	186.5	322.4	3.7	20.5	93.9
Kentucky.....	25	25	5.6	16.9	5.4	9.9	16.2	26.2	32.8	58.9	0.5	4.4	14.6
Tennessee.....	47	46	11.0	34.8	10.2	18.6	30.2	59.0	83.9	142.0	1.7	8.8	46.9
Alabama.....	19	17	4.6	12.8	4.2	7.1	11.3	20.2	36.6	57.8	0.6	2.4	12.4
Mississippi.....	27	27	7.3	22.5	6.9	12.6	20.2	32.1	33.2	63.6	0.9	4.9	20.1
West South Central....	66	63	15.8	51.4	14.6	25.8	43.6	88.6	102.0	186.7	1.7	11.0	53.3
Texas.....	41	38	10.6	35.4	9.7	17.9	29.4	56.4	64.0	118.3	1.1	7.4	35.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozens)	Value (million dollars)	Quantity (1,000 dozens)	Value (million dollars)
2328- --	MEN'S AND BOYS' WORK CLOTHING, TOTAL.....	(X)	885.1	(X)	635.2
23281 13	Men's and boys' work shirts:				
	As reported in the census of manufactures.....	4,969	123.6	3,880	87.3
	As reported on Census annual Form, MA-23A.....	4,161	(NA)	3,786	87.4
23282 12	Men's and boys' work clothing (except work shirts) and washable service apparel:				
	As reported in the census of manufactures.....	23,481	722.4	19,730	540.3
	As reported on Census annual Form, MA-23A.....	22,376	(NA)	19,331	542.6
23280 00	Men's and boys' work clothing, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	36.2	(X)	7.6
23280 02	Men's and boys' work clothing, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	2.8		
23289 15	Receipts for contract work on work shirts, work clothing, and washable service apparel done for others on their material.....	(X)	150.7	(X)	84.5
Product code	Product	Production (1,000 dozens)			
		1967	1963		
	(As reported on Census Annual Form MA-23A)				
2328- --	MEN'S AND BOYS' WORK CLOTHING, TOTAL.....	26,537	23,477		
23281 --	Men's and boys' work shirts.....	4,161	3,786		
23281 15	Men's.....	4,042	3,742		
23281 21	Boys'.....	119	44		
23282 --	Men's and boys' work clothing (except work shirts) and washable apparel service.....	22,376	19,331		
	Men's:				
23282 11	Dungarees and waistband overalls.....	7,464	4,152		
23282 12	Bib overalls.....	735	563		
23282 31	Workpants except dungarees, overalls, and waterproof pants.....	6,138	5,807		
23282 14	One-piece worksuits and coveralls except waterproof and flight clothing.....	679	549		
23282 13	Overall, and work-type jackets.....	281	345		
23282 15	Washable service apparel.....	1,368	1,932		
	Boys':				
23282 24	Dungarees, jeans, waistband, and bib overalls.....	5,538	5,523		
23282 32	Work pants except dungarees, overalls, and waterproof pants.....	173	380		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.



TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2328.--MEN'S AND BOYS' WORK CLOTHING				
	Materials, containers, and supplies, total.....	(X)	520.8	(X)	397.1
	Broadwoven fabrics, total.....	630.6	385.1	577.4	325.4
220124	Suiting and coating piece goods, excluding linings.....	630.6	385.1	52.5	34.5
220125	All other piece goods, including linings.....			524.9	290.9
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(X)	69.3	(X)	59.5
970099	All other materials, containers, and supplies.....	(X)	65.8	(X)	12.1
976000	Materials, containers, and supplies, n.s.k.....				

n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

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This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2328, these small establishments accounted for approximately 0.6 percent of payrolls and 1.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

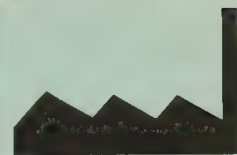
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**OFFICIAL BUSINESS**

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES



MC67(P)-23A-7

## INDUSTRY SERIES

### Men's and boys' clothing, n.e.c.

SIC Code 2329

**preliminary  
report**

The Men's, Youths', and Boys' Clothing, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing men's, youths', and boys' clothing, not elsewhere classified. Establishments primarily engaged in manufacturing polo and sport shirts from purchased woven or knit materials are classified in industry 2321; separate trousers in industry 2327; work clothing in industry 2328; and leather and sheep lined garments in industry 2386. Knitting mills primarily engaged in manufacturing outerwear are classified in industry 2253.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Men's and Boys' Clothing, N.E.C., Industry amounted to \$660.9 million, an increase of 66 percent compared with 1963. Value added by manufacture at \$311.1 million in 1967 was 70 percent more than value added in 1963. Average employment in the industry showed an increase of 16 percent from 1963 to a total of 41.5 thousand employees in 1967.

Of the \$660.9 million total value of shipments and other receipts of establishments classified as men's and boys' clothing, n.e.c., manufacturers, \$140.8 million were products primary to other

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (per-cent)	Coverage ratio (per-cent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2329.--MEN'S AND BOYS' CLOTHING, N.E.C.														
1967 Census....	545	362	41.5	166.8	37.1	66.1	130.1	311.1	350.2	660.9	5.1	110.3	75	57
1966 ASM <sup>1</sup> .....	(NA)	(NA)	41.0	153.6	36.3	68.5	115.7	277.2	358.6	623.0	*6.6	105.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	38.9	137.8	35.1	64.9	109.2	245.6	310.9	543.6	*4.3	88.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	36.4	122.3	32.4	57.6	95.2	186.8	298.1	485.5	3.2	69.4	(NA)	(NA)
1963 Census....	554	365	35.9	115.7	32.3	57.1	92.8	183.2	217.2	397.6	2.8	56.9	83	47
1962 ASM <sup>1</sup> .....	(NA)	(NA)	36.9	117.9	33.6	57.0	95.1	164.6	256.2	425.2	*3.5	62.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	34.9	103.3	31.8	51.8	82.5	146.1	226.9	372.3	*2.3	51.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	37.5	107.0	33.8	55.5	86.8	163.6	205.3	382.3	*2.9	55.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	37.7	104.8	33.8	57.5	84.6	166.5	239.9	403.5	(S)	57.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	539	324	32.4	93.1	28.6	52.4	73.8	150.0	216.6	366.0	2.4	49.8	78	57

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
**Rocco C. Siciliano**, Under Secretary  
**Harold C. Passer**, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

industries; and \$97.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 75 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 83 percent in 1963.

The total value of men's and boys' clothing, n.e.c., shipped by all producers in 1967 was \$746.9 million of which \$423.1 million, or 57 percent, were shipped by plants classified in industry 2329,

Men's and Boys' Clothing, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 47 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2329, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Annual Apparel Survey and are also shown in Table 3 of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2329.--MEN'S AND BOYS' CLOTHING, N.E.C.													
United States, total.....	545	362	41.5	166.8	37.1	66.1	130.1	311.1	350.2	660.9	5.1	35.9	183.2
New England.....	55	38	3.1	12.9	2.8	4.6	10.1	21.7	16.9	38.6	0.5	2.5	13.9
New Hampshire.....	4	3	0.3	1.4	0.3	0.5	1.0	2.2	2.4	4.6	(D)	(D)	(D)
Massachusetts.....	41	28	2.3	9.6	2.1	3.4	7.7	16.2	10.4	26.6	0.3	1.9	10.6
Middle Atlantic.....	244	147	13.2	59.2	11.8	22.0	46.2	124.4	140.1	269.4	2.0	12.0	69.5
New York.....	139	85	5.1	23.7	4.4	8.4	17.3	41.3	62.2	106.7	0.9	4.6	34.8
New Jersey.....	36	25	2.7	14.6	2.4	4.5	11.2	50.5	52.9	105.7	0.3	(D)	(D)
Pennsylvania.....	69	50	5.5	20.9	5.0	9.1	17.7	32.6	24.9	57.1	0.8	(D)	(D)
East North Central...	51	36	3.5	15.4	2.7	4.8	9.1	31.5	60.2	91.5	0.4	3.4	19.0
Illinois.....	23	17	1.4	5.3	1.2	2.2	4.1	9.3	10.4	20.0	0.2	1.3	6.7
West North Central...	29	24	2.5	9.8	2.2	4.0	7.8	19.1	16.6	35.7	0.2	3.4	17.0
Missouri.....	12	10	1.0	3.9	0.9	1.6	3.2	7.8	9.9	17.7	0.1	1.2	5.2
South.....	95	76	15.4	53.3	14.2	24.8	44.4	88.5	88.5	171.7	1.4	11.7	45.7
Georgia.....	12	11	1.8	5.6	1.7	3.0	4.8	9.0	9.7	18.5	(D)	(D)	(D)
East South Central...	32	30	9.0	31.6	8.3	14.3	26.4	52.5	58.3	106.0	1.0	5.8	22.1
West.....	71	41	3.8	16.1	3.3	5.9	12.4	26.0	27.9	54.0	0.6	2.8	18.1
Washington.....	12	11	1.2	5.5	1.0	1.8	3.8	9.8	8.8	18.9	0.1	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozens)	Value (million dollars)	Quantity (1,000 dozens)	Value (million dollars)
2253- pt. 2329- --	MEN'S AND BOYS' CLOTHING, N.E.C., TOTAL.....	(X)	746.9	(X)	601.4
23291 00	Men's and boys' heavy outerwear coats and jackets including uniforms (nontailored):				
	As reported in census of manufactures.....	3,219	291.7	3,336	258.7
	As reported on Census annual Form MA-23A.....	3,163	(NA)	3,418	(NA)
23292 pt.	Men's and boys' outerwear, n.e.c.(made from woven or purchased knit fabrics):				
23292 10	Swimwear and athletic shorts.....	2046	50.8	1,526	30.9
23292 40	Other outerwear, n.e.c., made from woven fabrics (including slack suits, ski and snow pants, and leggings and wash suits).....	(X)	78.1	(X)	57.8
22531 10 23292 60	Men's and boys' sweaters; knit jackets, and jerseys:				
	As reported in the census of manufactures.....	<sup>1</sup> 4,392	228.0	4,234	209.7
22531 10	Made in knitting mills.....	4,027	208.7	3,757	183.1
23292 60	Made in cut-in-sew shops.....	365	19.3	477	26.6
	As reported on Census annual Form MA-23A.....	<sup>1</sup> 4,251	(NA)	4,114	201.3
22532 40 23292 80	Men's and boys' other knit outerwear, n.e.c., including knit swimwear.....	(X)	63.2	(X)	33.4
22533 40	Made in knitting mills.....	(X)	22.7	(X)	14.7
23292 80	Made in cut-and sew shops.....	(X)	40.5	(X)	18.7
23292 00	Men's and boys' other outerwear, made from woven or purchased knit fabric, n.s.k.....	(X)	3.1	(X)	1.8
23290 00	Men's and boys' outerwear, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	28.7	(X)	9.1
23290 02	Men's and boys' outerwear, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	3.3		
23299 11	Receipts for contract work on men's and boys' clothing, n.e.c., done for others on their materials <sup>2</sup> .....	(X)	58.8	(X)	54.1
Product code	Product	Total quantity of cuttings (1,000 dozens)			
		1967	1963		
	(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL)				
23291 --	Nontailored jackets, including uniform, total.....	5,017	3,411		
23291 21	Men's heavy nontailored outer jackets except uniform, total.....	1,416	<sup>3</sup> 1,128		
23291 17	Cotton and cotton blends.....	650	1,128		
23291 15	Wool and wool blends.....	257			
23291 19	Fabrics except wool and wool blends or cotton and cotton blends.....	241			
23291 98	Fabric, n.s.k.....	268			
23292 05	Men's light nontailored outer jackets except uniform, total.....	1,294	<sup>3</sup> 1,087		
23292 15	Cotton and cotton blends.....	655	1,087		
23292 13	Wool and wool blends.....	40			
23292 19	Fabrics except wool and wool blends or cotton and cotton blends.....	413			
23229 98	Fabric, n.s.k.....	186			
23292 99	Men's uniform nontailored outer jackets, total.....	1,073	(X)		
23292 07	Made under State and/or Federal Government contract.....	885	(X)		
23292 08	All other uniform nontailored outer jackets.....	188	(X)		
23291 25	Boys' nontailored heavy outer jackets, total.....	747	727		
23291 71	Wool and wool blends.....	133	727		
23291 72	Cotton and cotton blends.....	289			
23291 79	Fabrics except wool and wool blends and cotton and cotton blends.....	267			
23291 99	Fabric, n.s.k.....	58			
23292 08	Boys' nontailored light outer jackets, total.....	477	430		
23292 32	Cotton and cotton blends.....	258	430		
23292 31	Wool and wool blends.....	11			
23292 39	Fabrics except wool and wool blends and cotton and cotton blends.....	127			
23292 89	Fabric, n.s.k.....	81			
23292 97	Men's and boys' outerwear jackets, n.s.k.....	10	39		

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total quantity of cuttings (1,000 dozens)	
		1967	1963
2253- pt. 2329- --	MEN'S AND BOYS' CLOTHING, N.E.C.,—Continued  (AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL)—Continued		
	Swimsuits, total.....	1,846	1,479
23292 35	Men's swimsuits, total.....	1,193	1,479
23292 44	Knit fabric.....	234	
23292 41	Woven fabric.....	742	
23292 77	Construction, n.s.k.....	217	
23292 37	Boys' swimsuits, total.....	653	
23292 45	Knit fabric.....	152	356
23292 41	Woven fabric.....	414	
23292 78	Construction, n.s.k.....	87	
	Athletic shorts, total.....	674	356
23292 51	Men's athletic shorts.....	432	103
23292 53	Boys' athletic shorts.....	242	253
22531 05	Men's sweaters, knit cardigans, and pullovers, total.....	3,325	3,206
22531 22	Chiefly wool.....	1,356	3,206
22531 24	Chiefly manmade fibers (nylon, acrylic, etc.).....	912	
22531 29	Chiefly other fibers including mixtures and blends, except wool and manmade fibers.....	458	
22531 30	Fiber, n.s.k.....	599	
22531 07	Boys' sweaters, knit cardigans, and pullovers, total.....	926	908
22531 31	Chiefly wool.....	100	908
22531 33	Chiefly manmade fibers (nylon, acrylic, etc.).....	440	
22531 39	Fibers including mixtures and blends, except chiefly wool and manmade fibers.....	184	
22531 40	Fiber, n.s.k.....	202	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. (X) Not applicable.

<sup>1</sup>For 1967 data for men's and boys' sweaters, knit jackets, and jerseys are not directly comparable to the information shown on Census Form MA-23A. The census of manufactures figure includes knit jackets and jerseys whereas the MA-23A data exclude these products.

<sup>2</sup>Contract receipts are not included in the total shown for men's and boys' clothing, n.e.c. Contract receipts include all receipts for work on men's and boys' clothing, n.e.c., done for others on their materials regardless of the industry classification of the establishment.

<sup>3</sup>Includes uniform jackets.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2329.--MEN'S AND BOYS' CLOTHING, N.E.C.				
	Materials, containers, and supplies, total.....	(X)	260.7	(X)	178.4
	Broadwoven fabrics, total.....	183.5	154.8	137.1	122.0
220124	Suiting and coating piece goods, excluding linings.....	<sup>e</sup> 56.8	66.1	50.2	58.3
220125	All other piece goods, including linings.....	<sup>e</sup> 126.7	88.7	86.9	63.7
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	23.9	29.1	15.9
970099	All other materials, containers, and supplies.....	(X)	36.4	(X)	24.0
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	(X)	45.6	(X)	16.6

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2329, these small establishments accounted for approximately 0.5 percent of payrolls and 0.4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

OFFICIAL BUSINESS

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE



1967 CENSUS OF  
MANUFACTURES

MC67(P)-23B-1

## INDUSTRY SERIES

preliminary  
reportWomen's and misses' blouses and waists  
SIC Code 2331

The Women's, Misses', and Juniors' Blouses, Waists, and Shirt Industry includes establishments primarily engaged in manufacturing women's, misses', and juniors' blouses, waists, and shirts, from purchased woven or knit fabrics. Establishments making knit outerwear shirts from yarns knit in the same establishment are classified in industry 2253, Knit Outerwear Mills.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Women's and Misses' Blouses and

Waists Industry amounted to \$730.0 million, an increase of 20 percent compared with 1963. Value added by manufacture at \$385.0 million in 1967 was 28 percent more than value added in 1963. Average employment in the industry showed a decrease of 2 percent from 1963 to a total of 56.4 thousand employees in 1967.

Of the \$730.0 million total value of shipments and other receipts of establishments classified as blouses, \$100.1 million were products primary to other industries; and \$175.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 82 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)							
INDUSTRY 2331.--WOMEN'S AND MISSES' BLOUSES AND WAISTS														
1967 Census....	3994	630	56.4	210.0	50.8	91.3	167.8	385.0	355.4	730.0	6.2	86.0	82	75
1966 ASM <sup>1</sup> .....	(NA)	(NA)	65.2	224.2	58.0	106.0	177.7	408.0	400.9	4797.1	6.7	80.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	62.1	208.2	54.8	100.7	166.0	364.4	354.3	706.5	*5.5	71.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	60.0	190.4	54.6	95.5	153.0	339.3	353.5	682.2	*4.9	68.2	(NA)	(NA)
1963 Census.....	1,175	718	57.6	177.9	52.1	92.7	145.6	300.5	312.7	610.2	4.4	49.9	86	69
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*48.3	*154.3	*42.5	*75.5	*125.7	*293.2	*297.5	*586.8	*4.4	*36.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*44.7	*127.8	*39.6	*67.1	*102.7	*255.6	*283.6	*533.6	*1.8	*33.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,260	735	47.5	125.6	41.9	72.6	98.3	200.2	253.2	454.1	2.3	31.5	89	78

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

<sup>4</sup>A comparison of the reports filed in both the annual survey of manufactures and the census of manufactures indicates that approximately 5 to 10 percent of the 1966 data cells have been overstated; an estimate for prior years is not available. The primary reason for this discrepancy is due to classification problems caused by respondents in their reporting of combined value figures which should have been reported separately for such products as blouses, suits, slacks, sportswear, and dresses.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of blouses shipped by all producers in 1967 was \$603.2 million of which \$454.4 million, or 75 percent, were shipped by plants classified in industry 2331, Women's and Misses' Blouses and Waists, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 69 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2331, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Annual Apparel Survey.

Data as shown for the census represents shipments, whereas that shown for the MA-23A, Annual Apparel Survey, represent production. The remaining variations are the result of reporting differences for individual plants furnishing data on both surveys.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2331.--WOMEN'S AND MISSES' BLOUSES AND WAISTS													
United States, Total.....	994	630	56.4	210.0	50.8	91.3	167.8	385.0	355.4	730.0	6.2	57.6	300.5
New England.....	54	30	2.0	6.9	1.9	3.2	6.2	9.9	2.3	12.1	0.1	2.3	9.7
Massachusetts.....	40	20	1.4	5.0	1.3	2.3	4.5	7.3	1.8	9.1	0.1	1.5	6.8
Middle Atlantic.....	637	399	27.3	110.0	24.7	42.9	85.2	214.5	257.4	469.3	2.9	31.2	181.0
New York.....	365	174	10.2	50.0	8.7	16.1	33.9	121.0	211.3	329.5	(D)	11.4	93.0
New Jersey.....	43	30	1.8	7.1	1.7	3.0	5.9	12.9	8.4	21.4	(D)	2.2	9.9
Pennsylvania.....	228	195	15.3	52.9	14.3	23.8	45.4	80.6	37.7	118.3	1.2	17.6	78.2
North Central.....	25	18	2.0	8.6	1.7	3.1	6.1	17.1	13.5	30.9	0.2	2.7	16.4
Illinois.....	7	6	0.3	1.4	0.3	0.5	1.2	2.4	0.8	3.2	(D)	0.6	2.5
Missouri.....	7	7	0.7	2.8	0.6	1.2	2.3	4.8	3.2	8.0	(D)	1.1	5.3
South Atlantic.....	80	71	13.5	44.9	12.0	23.0	37.1	73.0	29.7	100.9	1.3	9.7	38.9
South Carolina.....	19	14	5.5	18.3	4.6	9.0	14.5	26.8	7.5	34.2	0.5	4.3	15.5
Georgia.....	9	9	1.6	5.1	1.4	2.7	4.2	11.1	3.2	13.9	0.1	1.5	6.0
Florida.....	13	8	0.9	3.1	0.8	1.6	2.6	6.3	2.5	8.7	(D)	0.5	2.5
East South Central....	27	22	5.2	16.1	4.9	8.9	14.4	31.4	12.7	38.6	(D)	4.8	16.1
West South Central....	16	13	1.6	6.2	1.4	2.8	4.9	9.2	6.3	15.5	(D)	2.2	9.2
Mountain.....	5	4	0.4	1.5	0.4	0.7	1.3	2.4	0.6	2.9	(Z)	0.4	1.5
Pacific.....	149	73	4.2	15.6	3.8	6.7	12.5	27.5	32.9	59.8	0.3	4.3	27.7
California.....	140	71	4.1	15.3	3.8	6.5	12.3	26.9	32.6	58.9	(D)	4.3	27.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
 (Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2253- -- 2331- --	WOMEN'S BLOUSES, TOTAL.....		(X)	603.2	(X)	562.9
	Women's, misses', and juniors' knit outerwear sport shirts:					
	As reported in the census of manufactures.....	1,000 dozen...	<sup>e</sup> 4,574	122.4	2,971	71.4
22532 30	Made in knitting mills.....	...do.....	<sup>e</sup> 1,047	23.3	586	13.0
23312 00	Made in cut-and-sew shops.....	...do.....	<sup>e</sup> 3,527	99.1	2,385	58.4
	As reported on Census Annual Form MA-23A <sup>1</sup> .....	...do.....	4,409	(NA)	2,914	53.3
	Women's, misses', and juniors' blouses, waists, and shirts (except knit):					
23317 00	As reported in the census of manufactures.....	...do.....	<sup>e</sup> 13,748	411.0	17,712	446.6
	As reported on Census Annual Form MA-23A.....	...do.....	14,064	(NA)	16,644	423.5
23310 00	Women's, misses', and juniors' blouses, waists, and shirts, n.s.k. (including commission receipts for making blouses, waists, and shirts). (For establishments with 10 or more employees. See Note.).....	...do.....	(X)	64.4	(X)	<sup>2</sup> 44.8
23310 02	Women's, misses', and juniors' blouses, waists, and shirts, n.s.k. (including commission receipts for making blouses, waists, and shirts). (For establishments with less than 10 employees. See Note.).....	...do.....	(X)	5.4		
23319 11	Receipts for contract work on blouses, waists, and shirts, done for others on their materials.....	...do.....	(X)	<sup>3</sup> 142.3	(X)	<sup>3</sup> 153.9

Product code	Product	Production (1,000 of dozens cut)	
		1967	1963
	AS REPORTED ON CENSUS ANNUAL FORM MA-23A, ANNUAL APPAREL SURVEY		
	Women's, misses', and juniors' knit shirts, total.....	<sup>r</sup> 4,409	2,914
23312 43	Knit outerwear, sport shirts, total.....	3,148	<sup>2</sup> 2,914
23312 11	Chiefly cotton.....	2,308	2,557
23312 15	Chiefly manmade (nylon, acrylic, rayon, etc.).....	575	357
23312 19	Fabrics except chiefly cotton and chiefly manmade.....	202	
23312 20	Fabric, n.s.k.....	63	(X)
23312 45	Sweatshirts.....	241	( <sup>4</sup> )
23312 88	Knit shirts, n.s.k.....	<sup>r</sup> 1,020	(X)
23317 10	Women's, misses', and juniors' blouses, waists, and shirts (except knit).....	14,064	17,411
	By price:		
23317 11	Priced under \$23 per dozen.....	4,446	9,916
23317 13	Priced from \$23 to \$38.99 per dozen.....	3,973	5,017
23317 15	Priced from \$39 and over per dozen.....	3,137	2,478
23317 98	Price line, n.s.k.....	2,508	-
	By fabric:		
23317 16	Made from chiefly cotton.....	6,063	12,734
23317 17	Made from chiefly manmade (nylon, acrylic, rayon, etc.).....	5,572	2,929
23317 19	Made from fabrics except chiefly cotton and chiefly manmade.....	709	1,748
23317 99	Fabric, n.s.k.....	1,720	-

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. <sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. <sup>r</sup>Revised. (X) Not applicable.

<sup>1</sup>Quantity figures as shown for the census represent shipments, whereas the figures shown for Annual Form MA-23A, Annual Apparel, represent production.

<sup>2</sup>For 1963, a significant number of firms provided no information on their detailed type of activity (manufactures, jobber, or contractor), dollar value of their shipments, or receipts for work done on materials owned by others. The figure given is based on their 1963 payroll, against which industry averages were applied.

<sup>3</sup>Contract receipts are not included in the total shown for products of their industry.

<sup>4</sup>Sweatshirts are included with knit outerwear sport shirts.



TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2331. WOMEN'S AND MISSES' BLOUSES AND WAISTS				
	Materials, containers, and supplies, total.....	(X)	254.2	(X)	204.8
	Broadwoven fabrics.....	(NA)	98.2	204.3	124.3
220124	Suiting and coating piece goods, excluding linings.....	}	98.2	11.3	9.6
220125	All other piece goods, including linings.....			193.0	114.6
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	46.1	35.6	30.1
970099	All other materials, containers, and supplies.....	(X)	19.1	(X)	15.5
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	(X)	90.8	(X)	35.0

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

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This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2331, these small establishments accounted for approximately 0.6 percent of payrolls and 0.8 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

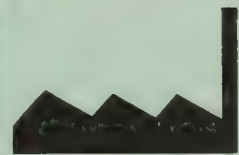
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-23B-2

## INDUSTRY SERIES

### Women's and misses' dresses

SIC Code 2335

**preliminary  
report**

The Women's, Misses', and Juniors' Dress Industry includes establishments primarily engaged in manufacturing women's, misses', and juniors' dresses, including ensemble dresses, whether sold by the piece or by the dozen. Knit dresses made in knitting mills are classified in industry 2253, Knit Outerwear Mills.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Women's and Misses' Dress Industry amounted to \$3,076.4 million, an increase of 27.6 percent compared with 1963. Value added

by manufacture at \$1,589.1 million in 1967 was 34.6 percent more than value added in 1963. Average employment in the industry showed an increase of 4.9 percent from 1963 to a total of 209.9 thousand employees in 1967.

Of the \$3,076.4 million total value of shipments and other receipts of establishments classified as women's and misses' dress producers, \$77.8 million were products primary to other industries; and \$634.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2335. --WOMEN'S AND MISSES' DRESSES													
1967 Census....	3,225	3,095	209.9	889.9	184.0	324.4	687.8	1,589.1	1,497.1	3,076.4	19.0	221.3	97	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	192.0	730.9	169.2	290.6	563.5	1,254.5	1,257.4	2,507.6	14.4	173.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	192.9	702.4	169.9	294.2	546.0	1,179.6	1,250.7	2,416.7	12.5	170.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	197.8	711.4	174.0	316.3	549.1	1,207.0	1,279.8	2,477.3	7.5	188.6	(NA)	(NA)
1963 Census....	4,752	3,013	200.0	686.8	177.1	306.3	543.7	1,180.9	1,233.3	2,411.0	12.7	162.6	96	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	185.1	623.8	162.1	281.4	472.7	1,101.7	1,191.3	2,278.9	7.7	135.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	192.8	610.1	170.0	295.1	471.2	1,050.3	1,132.0	2,169.8	5.9	126.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	195.4	613.3	171.3	295.0	475.3	1,042.3	1,166.3	2,194.4	5.4	126.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	197.5	621.6	173.3	318.5	482.4	1,027.8	1,165.4	2,201.4	(NA)	127.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	4,653	2,899	184.7	588.0	161.0	279.9	451.8	971.0	1,072.7	2,043.4	9.4	133.5	97	98

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments (See section of text on scope and coverage for further explanation.)

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of women's and misses' dresses shipped by all producers in 1967 was \$2,498.4 million of which \$2,363.8 million, or 95 percent, were shipped by plants classified in industry 2335, Women's and Misses' Dresses, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2335, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Apparel Survey.

The primary reason for differences is due to the exclusion of shipments data for respondents included in product codes 23350 00 and 23350 02 that were not requested to report detailed statistics or did not provide sufficient information (See table 3, footnote 2).



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2335. --WOMEN'S AND MISSES' DRESSES												
United States, total.....	5,225	3,095	209.9	889.9	184.0	324.4	687.8	1,589.1	1,497.1	3,076.4	19.0	200.0	1,180.9
New England.....	283	203	17.7	68.6	15.8	26.7	54.7	117.6	73.1	191.2	2.2	17.3	89.8
Massachusetts.....	188	130	12.3	49.2	10.9	18.4	38.7	87.9	65.0	153.3	1.3	11.5	66.7
Rhode Island.....	16	13	1.1	3.8	1.1	1.5	3.1	8.0	1.0	9.4	(D)	1.0	3.4
Connecticut.....	65	50	3.3	12.8	3.0	5.5	10.3	17.7	6.6	24.1	(D)	3.4	14.6
Middle Atlantic.....	3,470	2,142	119.6	536.6	104.7	183.2	411.3	982.9	1,060.3	2,036.8	9.7	118.7	762.6
New York.....	2,534	1,427	71.8	364.2	61.0	110.0	265.2	710.9	882.4	1,588.3	(D)	72.3	555.0
New Jersey.....	324	213	12.0	48.4	10.8	19.3	40.4	84.0	73.8	158.6	(D)	12.5	58.4
Pennsylvania.....	612	502	35.8	123.9	33.0	54.0	105.7	188.0	104.1	289.9	1.6	33.9	149.3
East North Central....	145	94	10.8	42.4	9.1	15.8	32.6	74.2	63.4	137.7	1.3	12.9	65.0
Illinois.....	96	63	7.1	27.9	6.1	10.6	21.6	48.6	42.1	90.5	0.5	8.3	41.7
Michigan.....	10	4	0.6	2.3	0.4	0.8	1.6	3.7	2.5	6.2	(Z)	0.6	2.8
West North Central....	76	50	6.2	27.2	5.3	9.5	19.6	48.6	33.7	82.3	0.3	6.8	43.3
Minnesota.....	11	4	0.5	1.9	0.4	0.7	1.5	3.7	2.2	5.8	(Z)	0.5	2.6
Missouri.....	58	41	4.8	22.0	4.1	7.3	15.1	40.8	29.6	70.4	0.2	5.4	36.7
South Atlantic.....	363	224	25.7	87.6	23.1	41.5	71.9	133.4	62.5	194.1	2.3	19.8	77.6
Delaware.....	6	4	0.4	1.7	0.4	0.8	1.5	2.2	0.6	2.7	(Z)	0.3	1.2
Maryland.....	18	12	1.9	6.7	1.9	3.0	5.8	9.5	2.7	11.9	0.4	(D)	(D)
North Carolina.....	54	41	3.9	13.2	3.5	6.5	10.5	19.5	8.6	27.7	0.4	(D)	(D)
South Carolina.....	56	52	8.6	27.4	7.8	14.0	23.1	38.9	14.2	52.7	0.5	6.9	26.2
Georgia.....	37	25	2.4	7.6	2.0	3.5	5.8	12.0	8.7	20.8	0.2	1.3	6.4
Florida.....	166	66	4.5	17.3	4.0	7.4	14.2	30.1	17.9	47.3	0.4	2.9	16.1
East South Central....	39	29	4.6	17.1	3.9	7.4	14.5	26.7	14.2	40.6	0.8	3.5	13.6
Kentucky.....	7	6	0.7	2.7	0.6	1.1	2.3	4.4	1.8	6.1	(D)	0.5	2.4
Alabama.....	13	9	0.8	3.7	0.7	1.3	3.3	5.1	2.3	7.3	(Z)	(D)	(D)
West South Central....	140	93	10.6	41.6	10.1	18.0	32.0	64.9	55.0	118.8	1.0	8.4	42.1
Texas.....	122	80	8.0	32.6	7.9	13.8	24.4	52.1	47.3	98.5	0.7	6.6	35.9
Mountain.....	24	7	0.6	2.0	0.5	0.8	1.6	4.4	2.6	7.0	(Z)	0.5	2.7
Pacific.....	681	252	14.2	66.9	12.3	21.5	49.6	136.2	132.2	267.6	1.5	12.1	84.1
California.....	639	234	13.0	61.8	11.2	19.6	45.9	128.0	124.2	251.5	1.5	11.4	79.8
Hawaii.....	35	15	1.0	4.3	0.9	1.6	3.1	6.7	6.8	13.4	0.1	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2335- --	WOMEN'S AND MISSES' DRESSES, TOTAL.....	1,000 units....	(X)	2,498.4	(X)	1,961.9
23351 00	Women's, misses', and juniors' dresses sold at a unit-price, total:					
	As reported in the census of manufactures.....	...do.....	174,986	1,710.5	165,625	1,378.2
	As reported on Census annual Form MA-23A.....	...do.....	175,308	(NA)	161,735	1,312.5
	By price:					
23351 11	Priced under \$6 per unit.....	...do.....	41,593	(NA)	66,408	(NA)
23351 13	Priced from \$6 to \$9.99 per unit.....	...do.....	44,878	(NA)	55,180	(NA)
23352 15	Priced from \$10 to \$15.99 per unit.....	...do.....	29,200	(NA)	24,606	(NA)
23351 19	Priced from \$16 and over per unit.....	...do.....	21,591	(NA)	15,541	(NA)
23351 98	Price line, n.s.k.....	...do.....	38,046	(NA)	(X)	(X)
	By fabric:					
23351 21	Made from chiefly cotton.....	...do.....	37,318	(NA)	57,053	(NA)
23351 23	Made from chiefly wool.....	...do.....	23,513	(NA)	14,218	(NA)
23351 25	Made from chiefly manmade (nylon, acrylic, rayon, etc.)....	...do.....	73,264	(NA)	78,979	(NA)
23351 29	Made from fabrics except chiefly cotton, chiefly wool, and chiefly manmade.....	...do.....	6,156	(NA)	11,485	(NA)
23351 99	Fabric, n.s.k.....	...do.....	35,057	(NA)	(NA)	(X)
23352 00	Women's, misses', and juniors' dresses sold at a dozen-price, total:					
	As reported in the census of manufactures.....	1,000 dozen....	8,598	389.2	8,718	349.6
	As reported on Census annual Form MA-23A.....	...do.....	8,713	(NA)	8,187	328.9
	By price:					
23352 11	Priced under \$26 per dozen.....	...do.....	1,175	(NA)	2,409	(NA)
23352 13	Priced from \$26 to \$34.99 per dozen.....	...do.....	2,785	(NA)	2,360	(NA)
23351 15	Priced from \$35 to \$50.99 per dozen.....	...do.....	1,605	(NA)	1,581	(NA)
23352 17	Priced from \$51 and over per dozen.....	...do.....	2,040	(NA)	1,837	(NA)
23352 98	Price line, n.s.k.....	...do.....	1,108	(NA)	(X)	(X)
	By fabric:					
23352 21	Made from chiefly cotton.....	...do.....	4,439	(NA)	6,256	(NA)
23352 23	Made from chiefly manmade (nylon, acrylic, rayon, etc.)....	...do.....	2,569	(NA)	1.9	(NA)
23352 29	Made from fabrics except chiefly cotton and chiefly manmade.....	...do.....	761	(NA)		
23352 99	Fabric, n.s.k.....	...do.....	944	(NA)	(X)	(X)
23350 00	Women's, misses', and juniors' dresses (including commission receipts for making such dresses), n.s.k. <sup>2</sup> (For plants with 10 employees or more. See Note.).....		(X)	360.3		
23350 02	Women's, misses', and juniors' dresses (including commission receipts for making such dresses), n.s.k. (For plants with less than 10 employees. See Note.).....		(X)	38.4	(X)	233.9
23359 15	Receipts for contract work on women's, misses' and juniors' dresses done for others on their materials <sup>3</sup> .....		(X)	553.2	(X)	423.3

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>The quantity data reported on Census Annual Form MA-23A Apparel, represent cuttings rather than shipments.

<sup>2</sup>A significant number of firms classified in Industry 2335, Dresses, provided no detailed information on their type of activity (manufacturer, jobber, or contractor), dollar value of their shipments of dresses, or receipts for work done on dresses from materials owned by others. The figure given is an estimate based on their payroll against which industry averages were applied.

<sup>3</sup>Contract receipts are not included in the total shown for women's, misses', and juniors' dresses. Contract receipts include all receipts for work on women's, misses', and juniors' dresses done for others on their materials regardless of the industry classification of the establishment.



TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2335.--WOMEN'S AND MISSES' DRESSES				
	Materials, containers, and supplies, total.....	(X)	982.7	(X)	801.4
	Broadwoven fabrics:				
220124	Suiting and coating piece goods, excluding linings.....	} (NA)	399.7	{ 35.2	37.3
220125	All other piece goods, including linings.....				
225601	Knitted fabrics (cotton, wool, manmade fiber fabrics, etc.).....	<sup>e</sup> 111.1	156.4	106.7	103.2
970099	All other materials, containers, and supplies.....	(X)	61.9	(X)	47.8
976000	Materials, containers, and supplies, n.s.k. <sup>i</sup> .....	(X)	364.7	(X)	186.4

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.<sup>i</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2335, these small establishments accounted for approximately 1.2 percent of payrolls and 1.4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-23B-3

## INDUSTRY SERIES

**preliminary  
report**

### Women's and misses' suits and coats

SIC Code 2337

The Women's, Misses', and Juniors' Suits, Skirts, and Coats Industry includes establishments primarily engaged in manufacturing women's, misses', and juniors' suits, skirts, and coats except furcoats and raincoats. Establishments primarily engaged in manufacturing fur garments are classified in industry 2371, raincoats in industry 2385, and knitting mills primarily engaged in manufacturing knit outerwear in industry 2253.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Women's and Misses' Suits and Coats Industry amounted to \$1,780.9 million, an increase of 17.0 percent compared with 1963. Value added by manufacture at \$793.0 million in 1967 was 24.3 percent more than value added in 1963. Average employment in the industry showed a decrease of 4.9 percent from 1963 to a total of 84.0 thousand employees in 1967.

Of the \$1,780.9 million total value of shipments and other receipts of establishments classified as producers of women's and misses' coats, suits, and skirts, \$243.4 million were products primary to other industries; and \$270.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the total manufactured

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2337.--WOMEN'S AND MISSES' SUITS AND COATS													
1967 Census....	2,103	1,235	84.0	423.4	71.8	127.4	308.7	793.0	975.7	1,780.9	9.5	153.1	84	89
1966 ASM <sup>1</sup> .....	(NA)	(NA)	95.4	431.2	81.4	149.8	318.4	814.0	975.2	1,779.8	*13.1	162.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	96.4	418.1	82.4	150.3	310.4	781.7	955.9	1,723.4	11.2	151.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	92.9	386.3	79.7	139.8	288.2	678.0	925.1	1,599.6	3.4	137.7	(NA)	(NA)
1963 Census....	2,516	1,380	88.3	361.0	75.5	133.6	271.4	637.9	887.0	1,522.7	12.3	126.8	88	92
1962 ASM <sup>1</sup> .....	(NA)	(NA)	79.0	331.6	68.7	122.1	246.0	556.0	762.6	1,322.3	*6.5	94.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	78.5	308.1	68.4	120.6	229.6	538.7	702.1	1,240.6	*4.2	88.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	81.8	302.6	70.3	121.1	222.3	513.9	707.2	1,222.3	(S)	86.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	83.1	306.4	71.2	123.8	229.4	515.3	726.5	1,241.7	(S)	92.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	2,683	1,350	84.1	309.7	70.7	123.3	229.4	514.9	717.5	1,233.2	7.0	101.9	93	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

The total value of women's and misses' suits and coats shipped by all producers in 1967 was \$1,416.7 million of which \$1,267.2 million, or 89 percent, were shipped by plants classified in industry 2337, Women's and Misses' Suits and Coats, while the remainder was shipped by plants

classified in other industries. This percent, called the coverage ratio, was 92 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2337, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Apparel.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2337.--WOMEN'S AND MISSES' SUITS AND COATS													
United States, total.....	2,103	1,235	84.0	423.4	71.8	127.4	308.7	793.0	975.7	1,780.9	9.5	88.3	637.9
New England.....	161	114	7.6	35.9	6.5	11.3	26.2	72.8	85.7	157.4	0.6	8.8	58.4
Massachusetts.....	127	85	5.6	27.1	4.7	8.3	19.0	58.9	72.4	130.3	0.5	6.7	45.3
Connecticut.....	30	26	1.8	8.3	1.6	2.9	6.9	13.1	12.0	25.0	0.2	(D)	(D)
Middle Atlantic.....	1,516	865	52.5	277.2	45.1	80.2	204.5	515.7	656.5	1,172.1	6.2	58.1	426.5
New York.....	1,153	585	32.6	187.7	27.2	48.8	132.0	366.0	540.7	909.3	3.3	39.4	329.2
New Jersey.....	278	218	13.7	64.7	12.4	22.2	54.1	102.0	61.2	161.0	1.3	14.2	77.7
Pennsylvania.....	85	62	6.2	24.8	5.5	9.1	18.4	47.7	54.6	101.8	1.6	4.6	19.6
East North Central....	88	48	5.5	28.3	4.4	7.8	18.2	60.3	63.1	135.3	0.8	4.8	44.4
Illinois.....	43	23	1.6	8.1	1.4	2.3	6.0	21.2	17.9	38.9	(D)	2.0	16.0
West North Central....	50	37	4.8	21.8	4.1	7.1	15.3	36.2	45.3	82.1	0.5	3.9	26.6
Missouri.....	30	24	3.1	14.7	2.6	4.3	9.7	23.9	34.3	58.6	0.3	2.7	17.9
South Atlantic.....	40	26	2.6	10.0	2.3	3.9	7.8	17.2	10.0	26.7	0.3	2.1	12.7
Georgia.....	10	7	0.6	2.2	0.6	1.1	1.9	3.6	1.9	5.4	0.1	0.6	2.6
Florida.....	10	8	0.5	1.9	0.4	0.5	1.6	2.9	0.9	3.9	(D)	0.4	1.6
East South Central....	9	5	1.2	4.6	1.0	1.9	3.2	5.9	5.9	12.4	(D)	1.1	4.2
West South Central....	21	15	1.6	6.7	1.3	2.5	4.7	13.7	9.6	23.7	0.2	0.8	4.2
Mountain.....	7	7	0.6	2.2	0.5	0.9	1.6	3.8	2.9	6.8	(D)	0.2	1.0
Pacific.....	213	115	7.7	36.6	6.7	11.8	27.2	67.3	96.6	164.5	(D)	8.5	59.7
Washington.....	11	7	0.7	2.9	0.7	1.1	2.1	3.7	3.5	7.2	0.1	0.4	1.9
California.....	194	106	6.9	33.4	5.9	10.6	24.9	62.3	92.9	155.7	(D)	7.8	56.5

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2337- --	WOMEN'S AND MISSES' SUITS AND COATS, TOTAL.....	.....	(X)	1,416.7	(X)	1,256.4
23371 --	Women's, misses', and juniors' (except fur and leather):					
	As reported in the census of manufactures, total.....	1,000 units..	<sup>1</sup> 22,581	605.2	23,702	542.9
	As reported on Census annual Form MA-23A, total.....	...do.....	22,414	(NA)	23,117	502.1
23371 11	Fur-trimmed fabric coats, including capes:					
	As reported in the census of manufactures.....	...do.....	(NA)	(NA)	4,206	168.1
	As reported on Census annual Form MA-23A.....	...do.....	5,670	(NA)	4,437	(NA)
	Untrimmed fabric coats, including capes, and reversible coats:					
	As reported in the census of manufactures.....	...do.....	(NA)	(NA)	17,813	357.6
	As reported on Census annual Form MA-23A.....	...do.....	16,744	(NA)	18,680	(NA)
23371 71	Uniform coats, topcoats, and overcoats.....	...do.....	749	12.6	1,422	11.2
23371 00	Coats, n.s.k.....	...do.....	<sup>2</sup> 23	0.6	<sup>2</sup> 261	6.0
23372 --	Women's, misses' and juniors' suits: <sup>3</sup>					
	As reported in the census of manufactures, total.....	...do.....	<sup>4</sup> 8,006	188.6	11,178	211.5
	As reported on Census annual Form MA-23A, total.....	...do.....	7,983	(NA)	10,902	201.6
23371 11	Suits, excluding uniform:					
	As reported in the census of manufactures.....	...do.....	(NA)	(NA)	10,265	197.4
	As reported on Census annual Form MA-23A.....	...do.....	7,633	(NA)	(NA)	(NA)
23372 16	Tailored uniform suits:					
	As reported in the census of manufactures.....	...do.....	(NA)	(NA)	662	9.4
	As reported on Census annual Form MA-23A.....	...do.....	350	(NA)	(NA)	(NA)
23372 00	Suits, n.s.k.....	Million doz..	<sup>2</sup> 22	0.5	<sup>2</sup> 251	4.7
23374 --	Women's, misses', and juniors', skirts and jackets:					
	As reported in the census of manufactures, total.....	...do.....	9,446	465.7	9,492	374.4
	As reported on Census annual Form MA-23A, total.....	...do.....	9,395	(NA)	9,300	381.4
23374 10	Separate skirts, including uniform:					
23374 10	As reported in the census of manufactures.....	...do.....	8,536	404.1	8,703	330.9
	As reported on Census annual Form MA-23A.....	...do.....	8,545	(NA)	8,362	(NA)
23374 20	Jackets, including uniforms, excluding fur and leather:					
	As reported in the census of manufactures.....	...do.....	878	60.0	710	40.3
	As reported on Census annual Form MA-23A.....	...do.....	<sup>5</sup> 850	(NA)	597	(NA)
23374 00	Skirts and jackets, n.s.k.....	...do.....	<sup>2</sup> 32	1.6	<sup>2</sup> 79	3.1
23370 00	Women's suits, coats, and skirts, including commission receipts for making such garments, n.s.k. (For companies with 10 or more employees. See Note.) <sup>6</sup> .....	.....	(X)	145.4	}	127.6
23370 02	Women's suits, coats, and skirts including commission receipts for making such garments, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	11.8		
23379 11	Receipts for contract work on women's suits, coats, and skirts, done for others on their material.....	.....	(X)	211.7	(X)	188.3

Product code	Product	Unit of measure	Production (thousand units)	
			1967	1963
	AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL			
23371 11	Fur trimmed coats and capes, (as reported annually on Census Form MA-23A, Apparel), total.....	1,000 units...	5,670	4,437
	By price:			
23371 13	Priced under \$39 per unit.....	...do.....	2,427	2,190
23371 15	Priced from \$39 to \$75.99 per unit.....	...do.....	1,660	1,667
23371 17	Priced from \$76 and over per unit.....	...do.....	520	580
23371 9#	Price line, n.s.k.....	...do.....	1,063	(X)
	By fabric:			
23371 21	Made from chiefly wool.....	...do.....	3,710	}
23371 29	Made from fabrics except chiefly wool.....	...do.....	791	
23371 99	Fabric, n.s.k.....	...do.....	1,169	

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of Shipments")

Product code	Product	Unit of measure	Production (thousand units)	
			1967	1963
	AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL--Continued			
	WOMEN'S AND MISSES' SUITS AND COATS--Continued			
23371 51	Untrimmed coats and capes, total.....	1,000 units...	16,744	18,680
	By price:			
23371 53	Priced under \$16 per unit.....	...do.....	5,341	8,565
23371 55	Priced from \$16 to \$38.99 per unit.....	...do.....	6,434	8,189
23371 57	Priced from \$39 and over per unit.....	...do.....	1,478	1,926
23371 88	Price line, n.s.k.....	...do.....	3,491	(X)
	By fabric:			
23371 61	Made from chiefly wool.....	...do.....	9,218	18,680
23371 69	Made from fabrics except chiefly wool.....	...do.....	3,981	
23371 89	Fabric, n.s.k.....	...do.....	3,545	
	Suits, including uniform, total.....	...do.....	11,816	10,902
23372 10	Suits, excluding uniform, total.....	...do.....	11,410	<sup>1</sup> 10,902
	Made in cut and sew shops.....	...do.....	7,633	(X)
	Made in knitting mills.....	...do.....	3,777	(X)
	By price:			
23372 21	Priced under \$16 per unit.....	...do.....	2,762	7,275
23372 23	Priced from \$16 to \$38.99 per unit.....	...do.....	3,960	2,518
23372 25	Priced from \$39 and over per unit.....	...do.....	1,336	1,109
23372 98	Price line, n.s.k.....	...do.....	3,352	(X)
	By fabric:			
23372 26	Made from chiefly wool.....	...do.....	4,336	7,275
23372 28	Made from chiefly manmade fabrics.....	...do.....	3,129	
23372 29	Made from other fabrics.....	...do.....	576	
23372 99	Fabric, n.s.k.....	...do.....	3,369	
22533 90	Knit suits and dresses, n.s.k.....	...do.....	56	(X)
23372 16	Uniform suits, total.....	...do.....	350	(X)
23372 17	Made under State and/or Federal Government contract.....	...do.....	350	(X)
23372 18	All other uniform suits.....	...do.....		
23374 10	Skirts, total.....	1,000 dozen...	8,545	8,362
	By price:			
23374 31	Priced under \$39 per dozen.....	...do.....	1,730	4,676
23374 33	Priced from \$39 to \$75.99 per dozen.....	...do.....	3,575	2,483
23374 35	Priced from \$76 and over per dozen.....	...do.....	1,008	1,203
23374 98	Price line, n.s.k.....	...do.....	2,235	(X)
	By fabric:			
23374 41	Made from chiefly cotton.....	...do.....	1,735	8,362
23374 43	Made from chiefly wool.....	...do.....	2,367	
23374 45	Made from chiefly manmade (nylon, acrylic, rayon, etc.).....	...do.....	1,680	
23374 49	Made from fabrics except chiefly cotton, chiefly wool, and chiefly manmade...	...do.....	387	
23374 99	Fabric, n.s.k.....	...do.....	2,379	
23374 20	Jackets, total.....	...do.....	<sup>r</sup> 850	597
23374 21	Chiefly cotton.....	...do.....	<sup>r</sup> 276	597
23374 23	Chiefly wool.....	...do.....	<sup>r</sup> 139	
23374 25	Other fabrics, including plastic, except chiefly cotton and chiefly wool.....	...do.....	<sup>r</sup> 262	
23374 29	Fabric, n.s.k.....	...do.....	<sup>r</sup> 173	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable. <sup>r</sup>Revised.

<sup>1</sup>For 1967, separate data were collected for women's fur trimmed and untrimmed coats. However, due to a large number of respondents that misclassified their shipments between fur trimmed and untrimmed coats, it was necessary to combine the data.

<sup>2</sup>Quantity for this item was estimated based on the unit price relationship for all other items in this product class.

<sup>3</sup>Excludes knit suits made in knitting mills. These suits are classified in Industry 2253.

<sup>4</sup>For 1967, separate data were collected for women's suits and uniform suits. However, due to a large number of respondents that misclassified their shipments between suits and uniform suits, it was necessary to combine the data.

<sup>5</sup>During the review of the 1967 Census data, it was discovered that individual companies were reporting erroneously on the MA-23A. This figure has been revised so as to correct the data being reported by those companies.

<sup>6</sup>A significant number of firms classified in Industry 2337 provided no detailed information on the type of activity (manufacturer, jobber, or contractor), dollar value of their shipments, or receipts for work done from materials owned by others. The figure given is an estimate based on their payroll, against which industry averages were applied.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2337.--WOMEN'S AND MISSES' SUITS AND COATS				
	Materials, containers, and supplies, total.....	(X)	676.8	(X)	634.5
	Broadwoven fabrics:				
220124	Suiting and coating piece goods, excluding linings.....	74.7	205.9	87.0	223.3
220125	All other piece goods, including linings.....	160.3	130.8	293.3	187.2
225601	Knitted fabrics (Cotton, wool, manmade fibers, etc.).....	32.6	40.4	29.7	34.2
970099	All other materials, containers, and supplies.....	(X)	52.6	(X)	62.7
976000	Materials, supplies, and containers, n.s.k. <sup>1</sup> .....	(X)	247.1	(X)	127.1

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>A significant number of companies failed to report costs of individual materials on the Census forms. Therefore their total costs are included in the n.s.k.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2337, these small establishments accounted for approximately 0.8 percent of payrolls and 0.8 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



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WASHINGTON, D.C. 20233**

**POSTAGE AND FEES PAID  
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**OFFICIAL BUSINESS**

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



1967 CENSUS OF  
MANUFACTURES

MC67(P)-23B-4

## INDUSTRY SERIES

preliminary  
report

## Women's and misses' outerwear, n.e.c.

SIC Code 2339

The Women's, Misses', and Juniors' Outerwear, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing women's, misses', and juniors' outerwear, not elsewhere classified, cut and sewed from purchased woven or knit fabric. Knitting mills primarily engaged in manufacturing outerwear are classified in industry 2253.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Women's and Misses' Outerwear, N.E.C.,

Industry amounted to \$949.1 million, an increase of 20.8 percent compared with 1963. Value added by manufacture at \$425.1 million in 1967 was 24.8 percent more than value added in 1963. Average employment in the industry showed an increase of 0.9 percent from 1963 to a total of 60.0 thousand employees in 1967.

Of the \$949.1 million total value of shipments and other receipts of establishments classified as producers of women's and misses' outerwear, n.e.c., \$194.0 million were products primary to other industries; and \$184.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 75 percent of the total manufactured product shipments, primary and secondary. This percent, called the

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2339.--WOMEN'S AND MISSES' OUTERWEAR, N.E.C.													
1967 Census....	<sup>3</sup> 1,101	656	60.0	235.2	52.1	94.4	174.0	425.1	520.5	949.1	7.9	144.4	75	57
1966 ASM <sup>1</sup> .....	(NA)	(NA)	68.3	256.9	59.4	111.6	192.5	450.2	523.8	960.0	*8.5	131.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	65.0	236.3	58.0	106.3	180.3	407.8	491.5	891.9	*7.8	120.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	62.8	214.6	54.3	98.2	163.0	381.3	487.6	858.8	*5.5	112.3	(NA)	(NA)
1963 Census....	1,297	709	59.5	200.2	51.4	94.0	151.4	340.5	443.2	786.0	7.0	106.0	80	55
1962 ASM <sup>1</sup> .....	(NA)	(NA)	53.9	174.8	46.0	83.9	125.3	303.1	386.0	682.0	6.4	89.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	49.9	155.5	42.9	77.9	111.6	268.0	342.9	607.0	*4.9	76.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	51.5	155.9	44.7	81.7	113.2	266.9	338.2	603.7	(S)	73.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	47.9	145.4	41.4	76.5	105.4	261.9	337.2	597.2	(S)	80.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,167	562	44.1	132.0	37.7	69.0	96.9	229.4	282.7	509.6	3.6	67.0	81	52

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 12 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS George Hay Brown, Director

specialization ratio for the industry, was 80 percent in 1963.

The total value of women's and misses' outerwear, n.e.c., shipped by all producers in 1967 was \$1,008.8 million of which \$570.2 million, or 57 percent, were shipped by plants classified in industry 2339, Women's and Misses' Outerwear, N.E.C., while the remainder was shipped by plants

classified in other industries. This percent, called the coverage ratio, was 55 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2339, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Apparel.

In view of the differences between the figures on sweaters, a review was undertaken of the data reported in each survey. This analysis revealed that some producers were omitted from the annual survey. These plants are being added to the MA-23A survey.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2339.--WOMEN'S AND MISSES' OUTERWEAR, N.E.C.												
United States, total.....	1,101	656	60.0	235.2	52.1	94.4	174.0	425.1	520.5	949.1	7.9	59.5	340.5
New England.....	71	43	2.7	10.7	2.4	4.4	8.5	18.1	16.4	34.5	0.4	2.8	17.9
Massachusetts.....	51	28	1.8	7.4	1.7	3.0	5.8	12.2	13.2	25.4	0.1	1.9	11.1
Middle Atlantic.....	524	288	21.6	88.7	18.7	33.5	65.0	174.3	227.7	401.8	2.5	23.3	144.7
New York.....	376	179	12.4	56.0	10.5	19.1	38.8	121.3	183.3	305.0	(D)	14.0	100.5
New Jersey.....	55	38	2.4	9.2	2.1	3.6	7.2	18.9	20.8	38.4	(D)	2.2	11.0
Pennsylvania.....	93	71	6.8	23.4	6.1	10.8	19.0	34.1	23.6	58.4	0.6	7.1	33.3
North Central.....	98	53	5.7	21.5	4.9	8.8	15.1	37.3	36.1	74.0	0.4	5.7	34.0
Illinois.....	30	15	1.2	4.5	1.0	1.9	3.2	7.5	5.7	13.3	0.1	0.9	5.4
Iowa.....	5	3	0.3	1.2	0.3	0.5	0.9	2.0	2.1	4.1	(D)	(D)	(D)
Missouri.....	24	16	1.9	6.6	1.7	2.8	5.2	13.0	12.2	25.2	(D)	1.9	11.1
South Atlantic.....	133	104	11.8	41.5	10.4	18.7	32.7	60.3	86.0	152.3	1.3	11.3	51.7
Maryland.....	20	17	1.0	4.5	0.9	1.5	3.1	8.3	14.0	22.2	(D)	1.1	6.6
Virginia.....	15	12	1.8	6.1	1.6	3.0	4.9	7.4	8.2	16.4	0.2	1.6	6.4
North Carolina.....	33	28	4.5	14.4	3.9	7.0	11.8	21.0	35.8	59.1	0.4	2.8	12.7
Georgia.....	17	16	1.8	6.7	1.6	2.9	4.9	9.6	18.5	31.0	0.4	2.4	10.2
Florida.....	35	22	1.7	6.3	1.5	2.7	5.0	9.9	8.5	18.4	0.2	1.8	8.8
East South Central....	34	28	4.9	14.7	4.5	8.2	13.1	31.8	25.6	57.0	(D)	3.3	13.0
Tennessee.....	15	12	2.7	8.0	2.5	4.3	7.0	21.7	20.1	41.7	0.3	(D)	(D)
Alabama.....	13	11	1.4	4.1	1.3	2.4	3.7	6.0	3.7	9.4	(D)	1.3	5.5
West South Central....	35	21	2.1	7.5	1.9	3.6	5.8	12.3	14.9	27.4	(D)	2.6	11.5
Texas.....	25	15	1.5	5.6	1.3	2.5	4.1	9.3	13.2	22.8	(D)	1.6	8.0
West.....	206	119	11.4	50.8	9.1	17.0	33.6	90.8	114.0	202.0	(D)	10.6	67.7
California.....	170	95	9.2	42.1	7.4	13.8	28.1	73.3	98.6	169.3	(D)	8.1	51.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2253- -- 2339- --	WOMEN'S AND MISSES' OUTERWEAR, N.E.C., TOTAL <sup>1</sup> .....	.....	(X)	1,008.8	(X)	933.3
23392 00	Aprons, smocks, hoovers, and washable service apparel.....	1,000 dozen...	4,615	121.2	4,713	98.9
23393 11	Scarfs, dickies, and other neckwear (except fur).....	...do.....	(X)	18.4	(X)	16.1
23393 20	Woven fabric bathing suits:					
	As reported on the census of manufactures.....	...do.....	885	69.0	711	48.6
	As reported on Census annual Form MA-23A.....	...do.....	( <sup>2</sup> )	(NA)	710	(NA)
	Sweaters, jackets, and jerseys:					
	As reported in the census of manufactures.....	...do.....	6,811	268.1	6,428	277.5
23393 30	Made in cut-and-sew shops.....	...do.....	747	42.3	798	43.6
22531 30	Made in knitting mills.....	...do.....	6,064	225.8	5,630	233.9
	As reported on Census annual Form MA-23A.....	...do.....	6,453	(NA)	5,880	256.4
23393 40	All other woven fabric outerwear, including play garments, overalls, ski and snowsuits, and leggings.....	.....	(X)	325.8	(X)	308.2
	All other knit fabric outerwear, including knit swimwear.....	.....	(X)	112.8	(X)	108.1
23393 90	Made in cut-and-sew shops.....	.....	(X)	71.0	(X)	71.3
22533 20	Made in knitting mills.....	.....	(X)	41.8	(X)	36.8
23390 00	Other outerwear, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	82.9	(X)	75.9
23390 02	Other outerwear, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	10.6		
23399 25	Receipts for contract work on women's, misses' and juniors' outerwear, n.e.c., done for others on their materials <sup>3</sup> .....	.....	(X)	119.1	(X)	100.7

Product code	Product	Production (thousands of dozens cut)	
		1967	1963
	(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL)		
	Washable service apparel, total.....	2,135	1,734
2339213	Uniforms.....	1,873	1,559
2339217	Other washable service apparel, including medical and lab jackets and smocks.....	262	175
2339355	Swimsuits, total.....	1,296	1,252
2339353	Knit fabric.....	596	463
2339359	Woven fabric.....	457	789
2339399	Construction, n.s.k.....	243	(X)
2253017	Sweaters, total.....	6,453	5,880
2253018	Pullover sweaters, total.....	3,683	2,558
2253141	Chiefly wool.....	965	2,558
2253143	Chiefly manmade fibers (nylon, acrylic, etc.).....	1,760	
2253149	Fibers including mixtures and blends, except chiefly wool and manmade.....	324	
2253150	Fiber, n.s.k.....	634	
2253109	Coat and cardigan sweaters, total.....	2,770	3,322
2253151	Chiefly wool.....	584	3,322
2253153	Chiefly manmade fibers (nylon, acrylic, etc.).....	1,358	
2253159	Fibers including mixtures and blends, except chiefly wool and manmade.....	98	
2253160	Fiber, n.s.k.....	730	
2339315	Dungarees and jeans.....	1,389	943

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production (thousands of dozens cut)	
		1967	1963
2253- -- 2339- --	WOMEN'S AND MISSES' OUTERWEAR, N.E.C.--Continued  (AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL)--Continued		
2339365	Slacks, total.....	7,023	4,591
2339367	Chiefly cotton.....	2,094	2,906
2339369	Fabrics except chiefly cotton.....	3,640	1,685
2339397	Fabric, n.s.k.....	1,289	
2339325	Playshorts, pedal pushers, bermudas, and jamicas, total.....	4,586	4,676
2339321	Chiefly cotton.....	1,865	4,251
2339329	Fabrics except chiefly cotton.....	1,882	425
233938	Fabric, n.s.k.....	839	(X)
2339335	Other playgarments, including playsuits, beachtops, and halters.....	725	1,313

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c..Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Does not include the following types of outerwear which are being published in separate reports for the industries indicated:

Women's, Misses', and Juniors' Blouses, Waists, and Skirts SIC 2331

Women's, Misses', and Juniors' Dresses SIC 2335

Women's, Misses', and Juniors' Coats, Suits, Separate Jackets and Skirts SIC 2337

<sup>2</sup>For 1967 some respondents did not report bathing suits by type of construction on the MA-23A. Therefore, the total quantity of woven fabric bathingsuits are not available. However, the figures as reported are shown below, "As reported on MA-23A."

<sup>3</sup>Contract receipts are not included in the total shown for women's, misses', and juniors' outerwear, n.e.c. Contract receipts include all receipts for work on women's, misses', and juniors' outerwear, n.e.c., done for others on their materials regardless of the industry classification of the establishment.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2339.--WOMEN'S AND MISSES' OUTERWEAR, N.E.C.				
	Materials, containers, and supplies, total.....	(X)	359.5	(X)	310.2
	Broadwoven fabrics:				
220124	Suiting and coating piece goods, excluding linings.....	e 205.6	162.6	7.4	11.6
220125	All other piece goods, including linings.....			261.6	162.8
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	78.8	52.6	45.9
970099	All other materials, containers and supplies.....	(X)	26.1	(X)	19.7
976000	Materials, supplies and containers, n.s.k. <sup>1</sup> .....	(X)	92.0	(X)	70.2

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2339, these small establishments accounted for approximately 1.3 percent of payrolls and 1.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-23C-1

INDUSTRY SERIES

**preliminary  
report**

## Women's and children's underwear

SIC Code 2341

The Women's, Misses', Children's, and Infants' Underwear and Nightwear Industry includes establishments primarily engaged in manufacturing women's, misses', children's, and infants' underwear and nightwear cut and sewed from purchased woven or knit fabric. Knitting mills primarily engaged in manufacturing underwear and nightwear are classified in industry 2254.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Women's and Children's Underwear Industry amounted to \$1,125.5 million, an increase

of 15.3 percent compared with 1963. Value added by manufacture at \$524.1 million in 1967 was 21.7 percent more than value added in 1963. Average employment in the industry showed a decrease of 1.0 percent from 1963 to a total of 76.0 thousand employees in 1967.

Of the \$1,125.5 million total value of shipments and other receipts of establishments classified as producers of women's and children's underwear, \$67.7 million were products primary to other industries; and \$153.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 93 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2341.--WOMEN'S AND CHILDREN'S UNDERWEAR														
1967 Census....	892	568	76.0	283.5	67.6	120.4	222.5	524.1	604.7	1,125.5	13.4	169.6	93	85
1966 ASM <sup>1</sup> .....	(NA)	(NA)	79.5	267.3	71.2	125.0	205.9	456.7	589.1	1,042.1	10.5	159.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	77.2	254.7	69.0	124.2	196.2	434.3	578.1	1,009.1	8.7	151.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	75.8	247.9	67.1	122.2	190.2	447.2	581.2	1,025.9	5.6	146.2	(NA)	(NA)
1963 Census....	1,069	628	76.7	238.8	68.4	123.4	186.3	430.8	553.0	976.1	6.4	141.7	93	85
1962 ASM <sup>1</sup> .....	(NA)	(NA)	69.1	211.3	60.5	100.7	162.0	364.1	486.6	848.2	5.6	122.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	71.8	208.9	62.9	102.9	157.7	374.2	472.0	843.2	5.6	111.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	74.5	205.0	67.2	107.7	158.3	360.2	473.1	837.2	4.6	104.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*78.6	*213.7	*71.2	*127.0	*169.9	*353.9	*485.7	*838.9	(S)	*109.3	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,231	720	73.5	199.7	65.0	116.8	154.8	347.7	467.4	814.7	5.4	101.3	96	83

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of women's and children's underwear and nightwear shipped by all producers in 1967 was \$1,052.3 million of which \$904.7 million, or 86 percent, were shipped by plants classified in industry 2341, Women's and Children's Underwear, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 85 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2341, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Apparel Survey.

The 1967 data compiled from this survey are shown in table 3A, together with the comparable totals reported in the census of manufactures. The more detailed cuttings data for 1965 and 1967 as reported on Current Industrial Report series MA-23A are shown in table 3B.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2341.--WOMEN'S AND CHILDREN'S UNDERWEAR													
United States, total.....	892	568	76.0	283.5	67.6	120.4	222.5	524.1	604.7	1,125.5	13.4	76.7	430.8
New England.....	49	34	3.4	11.7	3.1	5.3	9.8	15.5	11.1	26.5	0.4	5.3	22.5
Connecticut.....	11	7	0.7	2.4	0.6	1.0	1.8	2.9	3.8	6.6	(Z)	1.1	4.1
Middle Atlantic.....	596	329	29.1	115.1	25.6	44.4	87.1	226.8	364.4	587.2	4.9	32.8	209.2
New York.....	450	216	15.0	63.1	12.8	21.8	45.4	131.6	261.7	392.0	4.0	17.6	122.1
New Jersey.....	52	31	3.6	14.3	3.1	5.4	10.5	31.8	47.0	76.3	0.3	4.1	30.8
Pennsylvania.....	94	82	10.5	37.7	9.7	17.2	31.2	63.4	55.7	118.9	0.6	11.2	56.3
North Central.....	47	37	5.5	22.1	4.6	8.3	16.3	50.1	46.8	95.4	0.5	5.1	30.2
South.....	161	143	33.9	118.7	30.7	55.9	97.5	205.7	161.2	368.4	6.5	30.5	153.0
Mississippi.....	10	10	2.2	7.1	2.1	3.6	6.1	12.6	6.7	19.8	(D)	2.6	11.7
Mountain.....	9	9	1.8	6.2	1.5	2.7	4.7	9.4	5.3	15.0	0.7	(D)	(D)
Arizona.....	5	5	0.8	3.0	0.7	1.3	2.3	4.6	3.7	8.7	(D)	0.6	3.3
Pacific.....	30	16	2.4	9.8	2.1	3.9	7.1	16.5	15.9	32.9	0.5	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

## 1967 CENSUS OF MANUFACTURES

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozens)	Value (million dollars)	Quantity (1,000 dozens)	Value (million dollars)
2341- -- 2254- --	WOMEN'S AND CHILDREN'S UNDERWEAR AND NIGHTWEAR:				
	As reported in the census of manufactures.....	(X)	1,052.3	(X)	948.1
	As reported on Census annual Form MA-23A.....	(X)	(NA)	(X)	879.5
22542 -- 23412 --	Knit and woven underwear:				
	As reported in the census of manufactures.....	65,597	548.7	71,725	533.1
	As reported on Census annual Form MA-23A.....	68,573	(NA)	67,715	498.3
22542 00 23412 10	Knit underwear:				
	As reported in the census of manufactures.....	54,723	402.5	61,217	386.5
	Made in knitting mills.....	14,056	66.9	17,272	70.8
	Made in cut-and-sew shops.....	40,667	335.6	43,945	315.7
23412 20 23412 00	Woven underwear.....	10,644	144.2	9,628	139.1
	Knit and woven underwear, n.s.k.....	1230	2.0	880	7.5
22543 -- 23413 --	Knit and woven nightwear:				
	As reported in the census of manufactures <sup>2</sup> .....	17,906	423.7	18,046	393.0
	As reported on Census annual Form MA-23A.....	17,037	(NA)	17,536	381.2
22543 00 23413 10	Knit nightwear:				
	As reported in the census of manufactures.....	9,008	210.9	7,394	154.5
	Made in knitting mills.....	2,839	45.5	2,814	43.1
	Made in cut-and-sew shops.....	6,169	165.4	4,580	111.4
23413 20 23413 00 23413 31	Woven nightwear.....	8,150	192.4	10,113	224.7
	Knit and woven nightwear, n.s.k.....	125	3.0	328	7.5
	Lounging pajamas - knit and woven <sup>2</sup> .....	623	17.4	211	6.3
23410 00 23410 02 23419 11	Knit and woven underwear and nightwear, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	70.4	(X)	22.0
	Knit and woven underwear and nightwear, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	9.5		
	Receipts for contract work on women's, misses', children's, and infants underwear and nightwear done for others on their materials <sup>3</sup> .....	(X)	123.0	(X)	107.2
Product code	Product	Production (1,000 dozens cut)			
				1967	1963
	AS REPORTED ON CENSUS ANNUAL FORM MA-23A				
	UNDERWEAR				
23412 11	Women's, misses', and juniors': Slips, total.....			7,150	7,354
	By construction:				
23412 01	Made from knit fabric.....			3,094	3,650
23412 03	Made from woven fabrics.....			2,871	3,704
23412 04	Construction, n.s.k.....			1,185	(X)
	By fabric:				
23412 05	Made from chiefly cotton.....			861	
23412 07	Made from chiefly manmade fiber fabric (nylon, rayon, polyester, etc.).....			5,272	
23412 09	Made from fabric except chiefly cotton and chiefly manmade.....			126	
23412 10	Fabric, n.s.k.....			791	7,354
23412 12	Half slips and petticoats, excluding pettipants, total.....			5,167	4,927
	By construction:				
23412 31	Made from knit fabric.....			2,424	2,969
23412 33	Made from woven fabric.....			1,655	1,958
23412 34	Construction, n.s.k.....			1,088	(X)
	By fabric:				
23412 35	Made from chiefly cotton.....			415	
23412 37	Made from chiefly manmade fiber fabric (nylon, rayon, polyester, etc.).....			3,321	
23412 39	Made from fabric except chiefly cotton and chiefly manmade.....			52	
23412 40	Fabric, n.s.k.....			1,379	4,927

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production (1,000 dozens cut)	
		1967	1963
	AS REPORTED ON CENSUS ANNUAL FORM MA-23A--Continued		
	UNDERWEAR--Continued		
	Underwear, excluding slips and half-slips, total.....	31,624	32,748
23412 13	Panties, including briefs, step-in, and pettipants, total.....	27,464	31,736
	By construction:		
23412 41	Made from knit fabric.....	20,914	30,904
23412 43	Made from woven fabric.....	4,644	832
23412 44	Construction, n.s.k.....	1,906	(X)
	By fabric:		
23412 45	Made from chiefly cotton.....	3,909	31,736
23412 47	Made from chiefly manmade fiber fabric (nylon, rayon, polyester, etc.).....	20,600	
23412 49	Made from fabric except chiefly cotton and chiefly manmade.....	110	
23412 50	Fabric, n.s.k.....	2,845	
23412 15	Briefers, vests, bloomers, camisoles, and union suits, total.....	783	1,012
	By construction:		
23412 51	Made from knit fabric.....	585	1,012
23412 53	Made from woven fabric.....		
23412 58	Construction, n.s.k.....		(X)
	By fabric:		
23412 55	Made from chiefly cotton.....	339	1,012
23412 57	Made from chiefly manmade fiber fabric (nylon, rayon, polyester, etc.).....	243	
23412 59	Made from fabric except chiefly cotton and chiefly manmade.....		
23412 60	Fabric, n.s.k.....	201	
23412 99	Underwear, excluding slips and half-slips, n.s.k.....	3,377	(X)
	Girls' and children's:		
23412 21	Slips, half-slips, and petticoats, excluding pettipants, total.....	3,163	2,333
	By construction:		
23412 61	Made from knit fabric.....	1,704	430
23412 63	Made from woven fabric.....	735	1,903
	Construction, n.s.k.....	724	(X)
	By fabric:		
23412 65	Made from chiefly cotton.....	916	2,333
23412 67	Made from chiefly manmade fiber fabric (nylon, rayon, polyester, etc.).....	1,955	
23412 69	Made from fabric except chiefly cotton and chiefly manmade.....	123	
23412 70	Fabric, n.s.k.....	169	
23412 23	Panties, drawers, and bloomers, including pettipants, total.....	11,688	11,547
	By construction:		
23412 71	Made from knit fabric.....	8,691	10,491
23412 73	Made from woven fabric.....	456	1,056
23412 78	Construction, n.s.k.....	2,541	(X)
	By fabric:		
23412 74	Made from chiefly cotton.....	6,619	11,547
23412 75	Made from fabric except chiefly cotton.....	2,720	
23412 79	Fabric, n.s.k.....	2,349	
23412 25	Vests and undershirts, total.....	1,300	1,113
	Infants and toddlers:		
23412 27	Panties.....	4,979	4,065
23412 91	Chiefly cotton.....	3,063	4,065
23412 92	Fabric except chiefly cotton.....	1,229	
23412 90	Fabric, n.s.k.....	687	
23412 28	Vests, undershirts, and bands.....	3,395	3,244
23412 93	Chiefly cotton.....	3,395	3,244
23412 94	Fabric except chiefly cotton.....		

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production (1,000 dozens cut)	
		1967	1963
	AS REPORTED ON CENSUS ANNUAL FORM MA-23A--Continued		
	UNDERWEAR--Continued		
	Infants and toddlers--Continued		
23412 29	Infants' and toddlers' underwear except panties, vests, shirts.....	107	384
	By construction:		
23412 95	Made from knit fabric.....	10	(X)
23412 96	Made from woven fabric.....	68	384
23412 20	Construction, n.s.k.....	29	(X)
	By fabric:		
23412 97	Made from chiefly cotton.....	27	384
23412 98	Made from fabric except chiefly cotton.....	57	
23412 30	Fabric, n.s.k.....	23	
	NIGHTWEAR		
	Women's, misses', and juniors', nightwear, total.....	10,123	10,109
23413 03	Nightgowns and sleepcoats, excluding sets with robes, total.....	5,182	10,109
	By construction:		
23413 21	Made from knit fabric.....	1,624	
23423 23	Made from woven fabric.....	2,881	
23413 20	Construction, n.s.k.....	677	
	By fabric:		
23413 25	Made from chiefly cotton.....	1,228	
23413 27	Made from chiefly manmade fiber fabrics (nylon, rayon, polyester, etc.).....	3,529	
23413 29	Made from fabric except chiefly cotton and chiefly manmade fiber.....	39	
23413 30	Fabric, n.s.k.....	386	
23413 05	Babydoll and shortie pajamas, excluding sets with robes, total.....	1,211	
	By construction:		
23412 32	Made from knit fabric.....	306	
23413 33	Made from woven fabric.....	815	
23413 34	Construction, n.s.k.....	100	
	By fabric:		
23413 35	Made from chiefly cotton.....	508	
23413 37	Made from chiefly manmade fiber fabric (nylon, rayon, polyester, etc.).....	599	
23413 39	Made from fabric except chiefly cotton and chiefly manmade.....	104	
23413 40	Fabric, n.s.k.....		
23413 07	Pajamas, excluding sets with robes, total.....	2,080	
	By construction:		
23413 41	Made from knit fabric.....	724	
23413 43	Made from woven fabric.....	1,164	
23413 44	Construction, n.s.k.....	192	
	By fabric:		
23413 45	Made from chiefly cotton.....	721	
23413 47	Made from chiefly manmade fiber fabrics (nylon, rayon, polyester, etc.).....	881	
23413 49	Made from fabrics except chiefly cotton and chiefly manmade.....		
23413 50	Fabric, n.s.k.....	478	
23413 08	Peignoir and robe sets with nightgown or pajamas, total.....	723	
	By construction:		
23413 51	Made from knit fabric.....	306	
23413 53	Made from woven fabric.....	279	
23413 54	Construction, n.s.k.....	138	
	By fabric:		
23413 55	Made from chiefly cotton.....	160	
23413 57	Made from chiefly manmade fiber fabric (nylon, rayon, polyester, etc.).....	517	
23413 59	Made from fabrics except chiefly cotton and chiefly manmade.....		
23413 60	Fabric, n.s.k.....	46	
23413 09	Separate bed-jackets and peignoirs excluding lounge robes, total.....	1,276	
23413 61	Knit fabric.....	93	
23413 63	Woven fabric.....	79	
23413 64	Construction, n.s.k.....	54	
23413 69	Nightwear, n.s.k.....	701	

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production (1,000 dozens cut)	
		1967	1963
	AS REPORTED ON CENSUS ANNUAL FORM MA-23A--Continued		
	NIGHTWEAR--Continued		
	Girls', children's, infants', and toddlers' nightwear, total.....	6,914	7,427
	Girls' and children's, total.....	3,040	5,196
23413 11	Nightgowns, total.....	885	
23413 71	Woven fabric.....	362	
23413 73	Knit fabric.....	488	
23413 74	Construction, n.s.k.....	35	
23413 13	Pajamas, total.....	2,155	
23413 75	Woven fabrics.....	1,229	
23413 77	Knit fabrics.....	737	
23413 79	Construction, n.s.k.....	189	
	Infants' and toddlers', total.....	3,790	
23413 15	Nightgowns, including kimonos, total.....	1,083	2,231
23413 17	Pajamas, total.....	767	
23413 91	Woven fabrics.....	138	
23413 93	Knit fabrics.....	603	
23413 99	Construction, n.s.k.....	26	
23413 16	Heavyweight sleeping garments made with feet, total.....	1,940	
23413 98	Girls', children's, infants', and toddlers' nightwear, excluding heavyweight sleeping garments, n.s.k.....	84	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity estimates based on the unit-value relationship reported for other products in the product class.

<sup>2</sup>The total for knit and woven nightwear as reported in the census is not completely comparable to the total reported on Census Annual Form MA-23A due to the inclusion of lounging pajamas in the census total. These garments are not included in the MA-23A total since they are not collected in that survey.

<sup>3</sup>Contract receipts are not included in the total shown for women's and children's underwear and nightwear.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2341. WOMEN'S AND CHILDREN'S UNDERWEAR				
	Materials, containers, and supplies, total.....	(X)	467.4	(X)	441.4
	Broadwoven fabrics, total.....	(NA)	130.2	358.5	133.8
220124	Suiting and coating piece goods, excluding linings.....	}	130.2	358.5	133.8
220125	All other piece goods, including linings.....				
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	165.2	354.4	160.4
970099	All other materials, containers, supplies, components, etc.....	(X)	70.9	(X)	56.6
976000	Materials, containers, and supplies, n.s.k.....	(X)	101.1	(X)	90.6

(NA) Not available. Data are withheld because the figures do not meet the production standards of the Census Bureau. This is primarily due to the poor response to the inquiry.

n.s.k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2341, these small establishments accounted for approximately 0.7 percent of payrolls and 0.7 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

## Corsets and allied garments

SIC Code 2342

preliminary  
report

The Corsets and Allied Garments Industry includes establishments primarily engaged in manufacturing corsets, corset accessories, and allied garments. Establishments primarily engaged in manufacturing surgical and orthopedic appliances are classified in industry 3842.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Corsets and Allied Garments Industry amounted to \$662.2 million, an increase of 11.5 percent compared with 1963. Value added by manufacture at \$351.4 million in 1967 was 13.2

percent more than value added in 1963. Average employment in the industry showed an increase of 2.2 percent from 1963 to a total of 37.9 thousand employees in 1967.

Of the \$662.2 million total value of shipments and other receipts of establishments classified as corset and allied garments manufacturers, \$51.6 million were products primary to other industries; and \$67.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 91 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2342. --CORSETS AND ALLIED GARMENTS													
1967 Census....	323	240	37.9	161.3	32.1	57.7	109.0	351.4	309.8	662.2	6.7	116.2	91	97
1966 ASM <sup>1</sup> 3.....	(NA)	(NA)	35.9	147.7	29.2	52.8	95.3	327.8	342.3	667.2	10.3	126.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	35.9	151.9	29.4	54.8	98.9	320.6	329.1	641.9	5.8	122.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	39.0	149.7	32.9	58.3	99.7	333.2	321.2	649.1	*4.7	110.3	(NA)	(NA)
1963 Census....	351	234	37.1	139.9	31.4	56.7	95.7	310.1	291.5	593.9	3.5	99.9	95	97
1962 ASM <sup>1</sup> .....	(NA)	(NA)	42.7	143.0	36.0	65.1	95.1	299.4	282.8	581.2	3.2	92.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	42.9	139.9	36.1	63.1	94.8	289.4	266.9	554.4	2.5	87.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	43.9	137.8	37.2	64.3	94.1	281.8	245.0	525.3	2.5	82.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*40.4	*132.4	*34.2	*61.1	*89.9	*270.2	*241.3	*509.9	*3.1	*78.2	(NA)	(NA)
1958 Census <sup>2</sup> ....	414	279	37.8	121.9	31.6	56.1	82.6	248.5	220.9	467.5	3.4	73.2	96	98

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. <sup>2</sup>Revised.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Data for 1966 and prior years are not completely comparable to the 1967 data because an undetermined amount of Puerto Rican shipments are included in the data for 1966 and prior years. These shipment figures have been excluded from the 1967 Census of Manufactures information.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of corsets and allied garments shipped by all producers in 1967 was \$559.5 million of which \$543.0 million, or 97 percent, were shipped by plants classified in industry 2342, Corsets and Allied Garments, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 97 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2342, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23J, Corsets, Brassieres, and Allied Garments.

This annual report includes Puerto Rican shipments of these garments whereas Puerto Rican shipments are excluded from the Census of Manufactures. Separate figures at the aggregate level only are noted in table 3 of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2342. --CORSETS AND ALLIED GARMENTS												
United States, total.....	323	240	37.9	161.3	32.1	57.7	109.0	351.4	309.8	662.2	6.7	37.1	310.1
New England.....	23	16	1.7	7.7	1.5	2.8	5.2	13.5	7.3	20.7	0.4	2.7	27.9
Connecticut.....	13	9	1.0	4.6	0.8	1.6	3.2	7.9	3.7	11.9	0.3	1.9	23.0
Middle Atlantic.....	201	142	17.4	79.1	14.3	24.5	48.1	143.8	175.7	318.9	2.1	18.0	139.8
New York.....	142	93	9.9	48.9	7.9	13.5	27.2	98.4	128.4	226.2	1.1	10.3	89.2
New Jersey.....	30	23	3.1	14.2	2.3	4.0	8.4	21.5	36.2	58.4	0.7	3.7	33.7
Pennsylvania.....	29	26	4.4	16.1	4.0	7.0	12.5	23.8	11.1	34.2	0.3	3.9	16.9
North Central.....	26	23	3.3	12.3	2.7	4.5	8.4	24.0	24.1	53.3	0.3	4.2	39.1
South.....	41	37	13.1	51.0	11.6	22.1	40.3	150.1	87.6	234.8	3.5	10.2	90.0
South Atlantic.....	22	21	8.2	33.9	7.0	13.3	25.0	105.4	60.7	164.1	1.9	6.7	65.9
California.....	22	22	2.4	11.2	2.1	3.9	7.0	19.9	15.1	34.5	0.4	2.1	13.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers <sup>1</sup>			
		1967		1963	
		Quantity (1,000 dozen)	Value (million dollars)	Quantity (1,000 dozen)	Value (million dollars)
2342- --	CORSETS AND ALLIED GARMENTS, TOTAL.....	(X)	559.5	(X)	532.0
23421 10	Brassieres:				
	As reported in the census of manufactures.....	15,046	261.3	16,969	285.8
	As reported on Census annual Form MA-23J <sup>1</sup> .....	20,634	353.5	17,048	286.1
23421 21	Brassieres (with band 3" or more), except bra-lettes.....	1,368	353.5	1,476	286.1
23421 31	Bra-lettes.....	63		98	
	Bandeaux, total.....	19,203		15,474	
	Strap, regular, total <sup>2</sup> .....	13,421		11,865	
23421 41	\$8.50 and under per dozen.....	3,459		3,689	
23421 43	\$8.51 to \$12.75 per dozen.....	3,025		2,524	
23421 45	\$12.76 to \$15.50 per dozen.....	1,773		1,484	
23421 46	\$15.51 to \$19.25 per dozen.....	1,390		1,377	
23421 47	\$19.26 to \$30.00 per dozen.....	2,631		1,901	
23421 48	\$30.01 and over per dozen.....	1,143		890	
23421 51	Strap, padded or contour-lined.....	5,354	278.9	2,951	238.4
23421 61	Strapless or convertible.....	428		658	
23422 --	Corsets, girdles, combinations, and accessories, total.....	(X)	278.9	(X)	238.4
23422 10	Corsets, girdles, and combinations, except surgical corsets:				
	As reported in the census of manufactures.....	7,038	274.5	6,767	229.7
	As reported on Census annual Form MA-23J <sup>1</sup> .....	7,966	( <sup>3</sup> )	6,706	( <sup>3</sup> )
23422 11	Corsets (back-laced or front-laced).....	56	( <sup>3</sup> )	63	( <sup>3</sup> )
	Girdles (with opening), including girdles made of latex, total <sup>2</sup> ....	2,332		2,028	
23422 21	\$36.00 and under per dozen.....	1,306		1,124	
23422 23	\$36.01 to \$65.99 per dozen.....	645		583	
23422 25	\$66.00 to \$95.99 per dozen.....	243		215	
23422 27	\$96.00 and over per dozen.....	138		106	
	Girdles (without opening), including girdles made of latex, total <sup>2</sup> .	5,355		4,275	
23422 32	\$30.00 and under per dozen.....	3,074		2,470	
23422 34	\$30.01 to \$51.00 per dozen.....	1,211		1,036	
23422 36	\$51.01 and over per dozen.....	1,070		769	
23422 61	Combinations and one-piece garments (corselets).....	223	3.6	246	8.7
23422 81	Corset accessories.....	(X)		(X)	
23422 00	Corsets, girdles, combinations, and accessories, n.s.k.....	(X)	0.8	(X)	(X)
23420 00	Corsets and allied garments, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	17.1	(X)	7.9
23420 02	Corsets and allied garments, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	2.2		
23429 11	Receipts for contract work on corsets and allied garments <sup>4</sup> .....	(X)	38.5	(X)	33.9

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1967 the Census of Manufactures data excludes Puerto Rican shipments whereas the data as reported on the MA-23J includes 5,502 thousand dozen brassieres shipped from Puerto Rican plants valued at \$88,055 thousand and 909 thousand dozen corsets, girdles and other foundation garments valued at \$25,073 thousand. Both the Census of Manufactures and the MA-23J include Puerto Rican shipments for 1963.

<sup>2</sup>Prices represent manufacturers' wholesale list price.

<sup>3</sup>On Census Annual Form MA-23J, value of shipments data were collected for corsets, girdles, and foundation garments, including surgical corsets and garter belts. This was reported for 1967 at \$313,634 thousand and \$242,168 thousand for 1963 and appears to be consistent with the value figures collected in the census after adjustments for the noncomparable items.

<sup>4</sup>Contract receipts are not included in the total shown for corsets and allied garments. Contract receipts include all receipts for contract work on corsets and allied garments done for others on their materials, regardless of the industry classification of the establishments.

TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2342.--CORSETS AND ALLIED GARMENTS				
	Materials, containers, and supplies, total.....	(X)	235.4	(X)	218.3
220126	Broadwoven fabrics (piece goods), including linings.....	<sup>e</sup> 112.2	106.9	142.9	106.6
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	<sup>e</sup> 38.6	37.5	33.5	33.6
970099	All other materials, containers, supplies, components, etc.....	(X)	39.4	(X)	49.1
976000	Materials, containers, and supplies, n.s.k.....	(X)	51.6	(X)	29.0

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2342, these small establishments accounted for approximately 0.3 percent of payrolls and 0.3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE**

**OFFICIAL BUSINESS**

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES

MC67(P)-23C-3



## INDUSTRY SERIES

**preliminary  
report**

### Millinery

SIC Code 2351

The Millinery Industry includes establishments primarily engaged in manufacturing women's, misses', children's, and infants' millinery. Establishments primarily engaged in manufacturing millinery braid and trimmings are classified in industry 2396.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Millinery Industry amounted to \$112.2 million, a decrease of 31.2 percent compared

with 1963. Value added by manufacture at \$63.3 million in 1967 was 32.1 percent less than value added in 1963. Average employment in the industry showed a decrease of 42.3 percent from 1963 to a total of 8.2 thousand employees in 1967.

Of the \$112.2 million total value of shipments and other receipts of establishments classified as millinery, \$2.2 million were products primary to other industries; and \$1.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 100 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2351.--MILLINERY													
1967 Census....	<sup>3</sup> 476	133	8.2	36.9	7.2	12.3	29.0	63.3	48.8	112.2	0.5	6.4	98	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	9.6	37.6	8.5	14.4	29.6	61.6	54.7	115.3	*0.3	7.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.9	43.1	9.5	16.3	33.8	67.5	55.0	123.1	0.2	6.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	13.1	52.4	10.8	20.2	42.1	82.6	66.4	148.6	0.3	10.7	(NA)	(NA)
1963 Census....	711	221	14.2	55.6	12.2	21.7	44.3	93.2	70.3	163.2	0.7	10.1	100	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	16.2	60.0	13.8	25.3	45.4	104.1	71.2	175.4	(Z)	9.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	16.8	61.3	14.3	26.4	45.9	107.7	73.0	180.5	(Z)	10.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	17.8	60.8	15.3	28.6	47.8	106.9	74.8	181.5	(Z)	10.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	18.6	63.3	16.2	29.2	49.8	106.9	78.4	185.3	(S)	11.7	(NA)	(NA)
1958 Census <sup>2</sup> ....	803	284	17.8	64.1	15.4	28.1	50.2	109.1	81.4	190.3	1.4	12.1	100	99

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. (Z) Less than \$500 thousand.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 8 and 8, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

William H. Chartener, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS A. Ross Eckler, Director

The total value of millinery shipped by all producers in 1967 was \$110.9 million of which \$108.2 million, or 98 percent, were shipped by plants classified in industry 2351, Millinery, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

1967 CENSUS OF MANUFACTURES  
TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	All em- ployees  (1,000)	Value added by manufac- ture  (million dollars)
	Total	With 20 employ- ees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2351.-MILLINERY												
United States, total.....	1476	133	8.2	36.9	7.2	12.3	29.0	63.3	48.8	112.2	0.5	14.2	93.2
Massachusetts.....	18	11	1.4	5.3	1.2	1.9	4.4	7.5	4.9	12.6	(Z)	(D)	(D)
Middle Atlantic.....	382	100	5.7	27.1	5.0	8.8	21.3	48.6	38.8	87.3	0.4	10.3	72.1
New York.....	366	91	5.2	25.1	4.6	8.1	19.6	45.1	36.3	81.2	0.4	9.6	67.4
New Jersey.....	8	4	0.3	1.2	0.2	0.4	1.0	2.0	1.8	3.8	(D)	0.4	2.4
Pennsylvania.....	8	5	0.2	0.8	0.2	0.3	0.7	1.5	0.7	2.3	(D)	0.4	2.4
East North Central....	18	6	0.3	1.1	0.2	0.4	0.8	1.8	1.0	2.8	(D)	0.7	4.0
West North Central....	5	3	0.1	0.4	0.1	0.2	0.4	0.7	0.2	0.9	(D)	0.2	0.9
Missouri.....	5	3	0.1	0.4	0.1	0.2	0.4	0.7	0.2	0.9	(D)	0.2	0.9
South Atlantic.....	12	5	0.3	1.1	0.3	0.4	0.9	1.6	1.8	3.4	(D)	(D)	(D)
Georgia.....	5	2	0.1	0.6	0.1	0.2	0.5	0.7	0.8	1.6	(D)	(D)	(D)
West South Central....	14	5	0.2	1.0	0.2	0.3	0.6	1.7	1.5	3.3	(Z)	(D)	(D)
Texas.....	14	5	0.2	1.0	0.2	0.3	0.6	1.7	1.5	3.3	(Z)	(D)	(D)
West.....	27	5	0.2	0.9	0.2	0.3	0.6	1.4	0.5	1.9	(Z)	0.3	2.3

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$500 thousand.

<sup>1</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozen)	Value (million dollars)	Quantity (1,000 dozen)	Value (million dollars)
2351- --	MILLINERY, TOTAL.....	(X)	110.9	(X)	159.5
23510 --	Millinery:				
	Felt body:				
23510 11	Fur-felt millinery.....	<sup>e</sup> 289	11.9	353	14.4
23510 13	Wool-felt millinery.....	<sup>e</sup> 276	6.7	439	10.5
	Straw, natural or synthetic:				
23510 31	Millinery made from sewn braid.....	<sup>e</sup> 326	10.9	467	14.3
23510 33	Millinery made from straw bodies.....	<sup>e</sup> 239	7.6	798	19.5
23510 41	Fabric millinery (made from all types of fabrics, including ribbon and pile fabrics).....	<sup>e</sup> 852	21.2	1,860	36.1
23510 51	Flower millinery.....	(NA)	3.7	262	6.3
23510 53	Whimseys and miniatures (usually made from veiling as a headpiece, decorated, and on a wire frame).....	(NA)	8.9	463	10.6
23510 55	Millinery made from purchased fur on the skin.....	(NA)	7.4	( <sup>1</sup> )	( <sup>1</sup> )
23510 95	Hat frames, all types.....	<sup>e</sup> 304	1.0	510	2.5
23510 98	Other millinery.....	<sup>e</sup> 127	4.3	489	10.0
23510 00	Millinery, n.s.k. (For companies with 10 or more employees. See Note)...	(X)	19.2	(X)	35.4
23510 02	Millinery, n.s.k. (For companies with less than 10 employees. See Note)...	(X)	8.1	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1963, this product class was included with product class code 2351098 which read "Other millinery, including millinery made from purchased fur."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2351, these small establishments accounted for approximately 2.1 percent of payrolls and 2.6 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

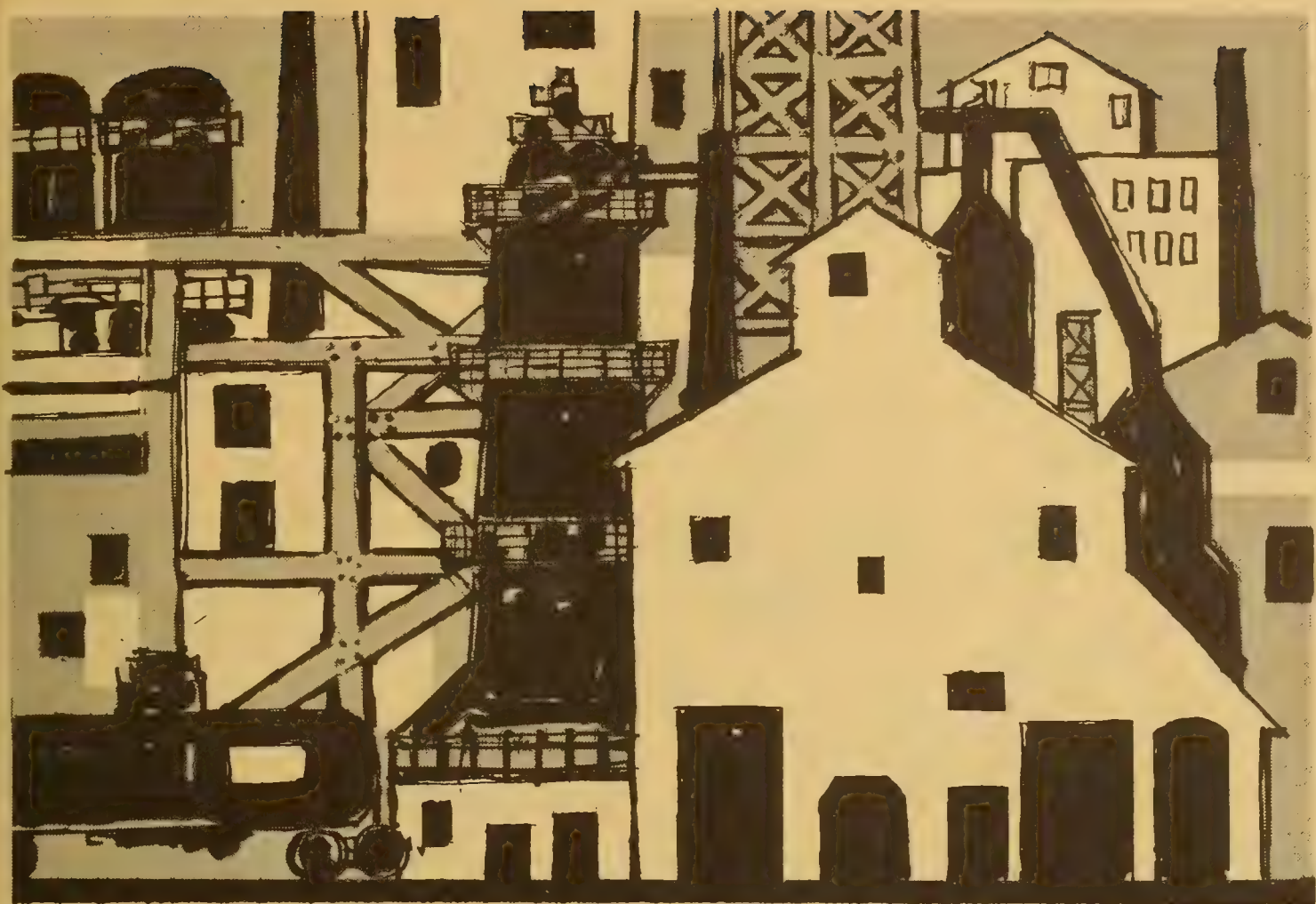
the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES

## INDUSTRY SERIES

### Hats and caps, except millinery

SIC Code 2352

preliminary report

The Hats and Caps, Except Millinery, Industry includes establishments primarily engaged in manufacturing hats and caps (except millinery) and all hat bodies. Knitting mills primarily engaged in manufacturing caps are classified in industry 2253.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Hats and Caps, Except Millinery, Industry amounted to \$194.5 million, an increase of 14 percent compared with 1963. Value added

by manufacture at \$100.8 million in 1967 was 10 percent more than value added in 1963. Average employment in the industry showed a decrease of 7 percent from 1963 to a total of 15.5 thousand employees in 1967.

Of the \$194.5 million total value of shipments and other receipts of establishments classified as hats and caps, except millinery, \$1.6 million were products primary to other industries; and \$15.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2352.—HATS AND CAPS, EXCEPT MILLINERY														
1967 Census....	3367	157	15.5	64.8	13.7	24.8	48.6	100.8	92.6	194.5	1.8	28.3	99	99
1966 ASM <sup>1</sup> .....	(NA)	(NA)	12.7	53.3	11.4	21.7	39.6	72.0	75.3	148.3	1.5	26.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	54.8	11.7	22.2	42.0	71.6	77.6	150.7	1.5	28.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	16.3	59.6	14.3	26.2	46.4	96.8	82.5	177.0	*1.4	32.4	(NA)	(NA)
1963 Census....	436	173	16.6	60.5	14.6	26.6	47.4	91.6	79.8	171.1	2.3	28.9	98	98
1962 ASM <sup>1</sup> .....	(NA)	(NA)	19.8	68.7	17.4	31.1	52.0	107.5	96.8	202.8	2.0	32.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	19.3	65.9	16.9	30.1	48.9	100.3	87.5	186.9	*1.5	30.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	20.6	65.5	18.3	32.4	51.8	108.7	89.4	198.1	(S)	33.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	22.2	69.8	19.9	35.4	56.0	113.4	96.7	203.9	1.7	34.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	446	169	17.7	59.3	15.4	27.8	46.2	91.3	78.5	170.7	1.1	27.7	98	98

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 8, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation).

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

The total value of hats and caps, except millinery, shipped by all producers in 1967 was \$179.3 million of which \$177.4 million, or 99 percent, were shipped by plants classified in industry 2352, Hats and Caps, Except Millinery, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 98 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2352.--HATS AND CAPS, EXCEPT MILLINERY												
United States, total.....	1367	157	15.5	64.8	13.7	24.8	48.6	100.8	92.6	194.5	1.8	16.6	91.6
New England.....	19	10	1.2	6.6	0.9	1.5	3.8	10.8	12.6	23.3	0.1	2.0	10.0
Middle Atlantic.....	220	70	5.6	25.4	5.0	8.9	19.1	36.8	31.6	69.8	0.6	6.2	36.3
New York.....	170	44	2.6	11.4	2.4	4.4	9.1	17.7	14.9	32.4	0.1	2.8	16.4
New Jersey.....	22	5	0.5	1.9	0.4	0.8	1.5	2.6	1.7	4.6	0.1	0.5	2.7
Pennsylvania.....	28	17	2.5	12.1	2.2	3.6	8.5	16.5	15.1	32.8	0.4	2.8	17.2
East North Central....	29	13	0.9	3.8	0.8	1.5	2.9	6.3	6.2	12.6	(D)	1.1	6.3
West North Central....	37	22	3.1	10.6	2.7	5.3	8.6	19.3	17.2	36.2	(D)	3.1	15.7
South.....	44	27	4.3	16.6	3.9	7.0	13.1	24.6	22.3	47.0	0.5	3.9	21.1
West.....	18	5	0.4	1.8	0.4	0.6	1.3	3.0	2.7	5.7	(Z)	0.3	2.2

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

<sup>1</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozen)	Value (million dollars)	Quantity (1,000 dozen)	Value (million dollars)
2352- --	HATS AND CAPS, EXCEPT MILLINERY, TOTAL.....	(X)	179.3	(X)	160.7
23521 --	Hats and hat bodies (except cloth and millinery), total.....	2,113	66.9	2,882	80.9
	Finished straw hats (except harvest hats):				
	Men's and boys':				
23521 11	Made from sewn braid.....	513	13.1	383	7.8
23521 13	Made from woven bodies.....	e 211	4.9	361	9.1
23521 41	Wool-felt finished hats, excluding millinery.....	289	5.7	387	6.8
23521 83	Fur-felt finished hats, excluding millinery.....	414	33.1	657	41.0
	Hat bodies (except hat bodies finished into hats or millinery in the same plant):				
23521 21	Wool-felt hat bodies.....	381	3.1	497	3.3
	Fur-felt hat bodies:				
23521 61	Men's and boys'.....	249	5.7	369	8.2
23521 65	Women's and children's.....	56	0.8	138	2.4
23521 00	Hats and hat bodies (except cloth and millinery) n.s.k.....	(X)	0.5	90	2.2
	Cloth hats and caps, total.....	(X)	98.1	(X)	71.9
23522	Men's and boys' hats and caps:				
23522 12	Cloth hats, except uniform.....	e 1,862	26.8	1,332	16.0
	Caps, except uniform:				
23522 14	Chiefly cotton fabrics.....	e 1,997	19.2	2,617	19.1
23522 16	Other fabrics.....	1,352	11.0	1,496	12.8
23522 17	Uniform hats and caps.....	e 2,323	29.1	672	10.2
23522 51	Hats and caps made from purchased fur on the skin (except millinery)....	71	1.8	(NA)	(NA)
23522 99	All other hats and caps (including harvest hats, women's uniform hats and caps, headwear made from purchased knit fabric.....	1,190	8.6	894	6.7
23522 00	Cloth hats and caps, n.s.k.....	(X)	1.6	(X)	7.1
23520 00	Hats and caps, except millinery n.s.k. (Represents principally establishments with 10 employees or more in 1967. See Note).....	(X)	9.0	(X)	7.9
23520 02	Hats and caps except millinery n.s.k. (Represents principally establishments with fewer than 10 employees in 1967. See Note).....	(X)	5.3	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

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The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2352, these small establishments accounted for approximately 3 percent of payrolls and 3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





**U.S. DEPARTMENT OF COMMERCE**

**BUREAU OF THE CENSUS**

**WASHINGTON, D.C. 20233**

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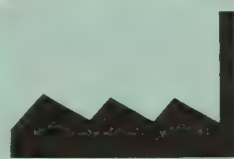
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-23C-5

## INDUSTRY SERIES

### Children's dresses and blouses

SIC Code 2361

preliminary  
report

The Girls', Children's, and Infants' Dresses, Blouses, Waists, and Shirts Industry includes establishments primarily engaged in manufacturing girls', children's, and infants' dresses, blouses, waists, and shirts, cut and sewed from purchased woven or knit fabric. Knitting mills primarily engaged in manufacturing outerwear are classified in industry 2253.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Children's Dresses and Blouses Industry amounted to \$493.0 million, an increase of 11.2 percent compared with 1963. Value added by manufacture at \$240.7 million in 1967 was 17.1 percent more than value added in 1963. Average employment in the industry showed a decrease of 2.5 percent from 1963 to a total of 34.9 thousand employees in 1967.

Of the \$493.0 million total value of shipments and other receipts of establishments classified as children's dresses and blouses, \$34.9 million were products primary to other industries; and \$89.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 91 percent of the total

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(per cent)	(per cent)
INDUSTRY 2361.—CHILDREN'S DRESSES AND BLOUSES														
1967 Census....	<sup>3</sup> 622	426	34.9	133.0	30.8	53.9	102.0	240.7	251.8	493.0	3.3	46.3	91	82
1966 ASM <sup>1</sup> .....	(NA)	(NA)	34.9	125.7	31.3	58.2	97.4	238.3	255.4	492.7	*3.5	48.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	38.0	131.4	34.1	60.9	103.0	239.2	270.1	505.5	*3.6	50.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	36.9	121.6	32.9	58.6	95.5	207.0	232.0	440.8	2.2	43.8	(NA)	(NA)
1963 Census....	667	412	35.8	115.1	31.9	55.9	90.0	205.6	239.8	443.3	3.0	44.1	90	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	34.8	111.5	29.8	48.4	81.7	202.8	312.2	516.2	*1.8	40.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	33.5	100.5	28.4	44.3	73.4	184.9	274.0	459.4	*1.2	39.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*37.8	*105.8	*32.7	*53.2	*81.6	*188.8	*265.6	*455.4	(S)	*34.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	37.8	108.5	33.1	58.4	84.5	185.5	202.7	389.1	(S)	34.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	802	487	36.1	100.8	31.9	57.1	78.3	167.1	188.4	355.4	1.8	33.0	96	82

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

The total value of children's dresses and blouses shipped by all producers in 1967 was \$452.0 million of which \$368.5 million, or 82 percent, were shipped by plants classified in industry 2361, Children's Dresses and Blouses, while the remainder was shipped by plants classi-

fied in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2361, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Apparel Survey.

The 1967 summary data compiled from this survey are shown in table 3A, together with the comparable totals reported in the census of manufactures. The more detailed cuttings data as collected on Current Industrial Reports Series MA-23A are shown in table 3B.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2361.—CHILDREN'S DRESSES AND BLOUSES												
United States, total.....	1622	426	34.9	133.0	30.8	53.9	102.0	240.7	251.8	493.0	3.3	35.8	205.6
New England.....	25	13	1.3	4.8	1.2	1.9	3.7	9.6	9.2	18.8	0.1	1.5	6.7
Massachusetts.....	13	7	0.6	2.2	0.5	0.7	1.6	4.3	4.4	8.7	(Z)	1.0	3.9
Middle Atlantic.....	433	298	21.3	86.1	18.6	31.6	64.5	165.0	192.4	358.3	(D)	22.4	144.2
New York.....	231	134	8.0	36.5	6.7	11.5	24.6	81.9	133.5	215.1	(D)	8.1	69.5
New Jersey.....	72	55	3.5	13.3	3.2	5.4	10.9	24.4	21.2	45.6	(D)	4.0	20.9
Pennsylvania.....	130	109	9.8	36.3	8.7	14.7	29.0	58.7	37.7	97.6	(D)	10.3	53.8
West North Central.....	8	3	0.3	0.8	0.2	0.4	0.6	1.0	0.4	1.4	(Z)	(D)	(D)
South.....	106	88	10.0	33.4	8.8	16.7	27.5	49.7	32.4	82.2	(D)	9.5	40.5
South Atlantic.....	75	68	8.2	27.7	7.2	13.6	22.8	41.1	29.0	70.3	(D)	(D)	(D)
Maryland.....	9	7	0.4	1.5	0.4	0.7	1.2	1.7	0.2	1.9	(D)	0.5	1.7
Virginia.....	17	17	1.9	5.7	1.8	3.0	5.1	8.0	1.1	9.0	0.1	1.6	5.7
North Carolina....	18	18	1.6	5.7	1.3	2.5	4.4	7.6	7.0	14.6	(D)	1.4	6.1
South Carolina....	13	12	2.9	9.9	2.5	5.1	7.8	14.2	13.9	27.8	(D)	2.7	10.8
Pacific.....	31	13	0.8	3.2	0.7	1.2	2.1	6.8	8.5	17.4	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

<sup>1</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation)

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozen)	Value (\$1,000)	Quantity (1,000 dozen)	Value (\$1,000)
2361- --	CHILDREN'S DRESSES AND BLOUSES: As reported in the census of manufactures..... As reported on Census annual Form MA-23A.....	(X) 18,385	452.0 (NA)	(X) (X)	409.9 394.8
23610 --	Children's, and infants' dresses, blouses, and shirts, except knit sport shirts: As reported in the census of manufactures..... As reported on Census annual Form MA-23A.....	11,489 11,511	332.3 (NA)	12,788 12,654	331.4 334.5
23610 10	Girls', children's, and infants' dresses: As reported in the census of manufactures..... As reported on Census annual Form MA-23A .....	9,095 9,097	295.4 (NA)	9,408 9,209	283.3 (NA)
23610 40	Girls', children's, and infants' blouses, blousesettes, waists, and shirts, excluding knit shirts: As reported in the census of manufactures..... As reported on Census annual Form MA-23A.....	2,394 2,414	36.9 (NA)	3,380 3,445	48.1 (NA)
23612 --	Children's, and infants' knit sport shirts: As reported in the census of manufactures.....	6,868	82.5	6,402	64.1
23612 10	Made in cut-and-sew shops (from purchased knit fabric).....	4,616	53.7	4,375	43.0
22532 40	Made in knitting mills (from yarn knit in same establishment)..... As reported on Census annual Form MA-23A.....	2,252 6,874	28.8 (NA)	2,027 6,603	21.1 60.4
23610 00	Girls', children's, and infants' dresses, blouses, waists, and shirts, except knit shirts made in knitting mills, n.s.k. (For companies with 10 employees or more. See Note).....	(X)	33.7	151.9	14.4
23610 02	Girls', children's, and infants' dresses, blouses, waists, and shirts, except knit shirts made in knitting mills, n.s.k. (For companies with less than 10 employees. See Note).....	(X)	3.5		
23619 13	Receipts for contract work on girls', children's, and infants' dresses, blouses, waists, and shirts. <sup>2</sup> .....	(X)	87.4	(X)	68.6
Product code	Product	Production (1,000 dozen)			
		1967	1963		
	(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL)				
23610 --	Children's dresses, blouses, and shirts, except knit sport shirts, total.....	11,511	12,654		
23610 10	Dresses, total.....	9,097	9,209		
23610 21	Girls', subteen, and teenage girls' dresses, total.....	3,541	3,580		
23610 41	Chiefly cotton.....	1,964	3,023		
23610 40	Fabrics except chiefly cotton.....	1,111	557		
23610 77	Fabric, n.s.k.....	466	(X)		
23610 23	Children's dresses, total.....	3,746	3,412		
23610 51	Chiefly cotton.....	1,939	3,023		
23610 59	Fabrics except chiefly cotton.....	948	588		
23610 78	Fabric, n.s.k.....	859	(X)		
23610 25	Infants' and toddlers' dresses, total.....	1,810	2,217		
23610 61	Chiefly cotton.....	1,008	1,913		
23610 69	Fabrics except chiefly cotton.....	423	304		
23610 79	Fabric, n.s.k.....	379	(X)		
23610 11	Blouses, waists, and shirts, total.....	2,414	3,445		
23610 05	Girls', subteen, and teenage girls', total.....	1,392	1,956		
23610 11	Chiefly cotton.....	634	1,594		
23610 13	Fabrics except chiefly cotton.....	309	362		
23610 88	Fabric, n.s.k.....	449	(X)		
	Children's and infants', total.....	1,022	1,489		
23610 06	Children's, total.....	432	1,489		
23610 15	Chiefly cotton.....	292			
23610 17	Fabrics except chiefly cotton.....	116			
23610 89	Fabric, n.s.k.....	24			
23610 07	Infants' and toddlers', total.....	186			
23610 31	Chiefly cotton.....	155			
23610 39	Fabrics except chiefly cotton.....	26			
23610 98	Fabric, n.s.k.....	5			
23610 99	Children's and infants' blouses, n.s.k.....	404			

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production (1,000 dozen)	
		1967	1963
(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL)--Continued			
23612 --	Girls', children's, and infants' knit shirts, total.....	6,874	6,603
23612 13	Girls', subteen and teenage girls knit outerwear sport shirts, excluding sweatshirts, total.....	810	878
23612 31	Chiefly cotton.....	603	878
23612 33	Chiefly manmade (nylon, acrylic, rayon, etc.).....	75	
23612 39	Fabrics except chiefly cotton and chiefly manmade.....	132	
23612 40	Fabric, n.s.k.....		(X)
23612 14	Children's, infants', and toddlers' knit outerwear shirts, total.....	5,733	5,725
23612 15	Children's knit outerwear sport shirts, excluding sweatshirts, total.....	3,250	5,725
23612 41	Chiefly cotton.....	2,448	
23612 43	Chiefly manmade (nylon, acrylic, rayon, etc.).....	337	
23612 49	Fabrics except chiefly cotton and chiefly manmade.....		
23612 50	Fabric, n.s.k.....		
23612 17	Infants' and toddlers' knit outerwear sport shirts, excluding sweatshirts, total.....	2,290	5,725
23612 51	Chiefly cotton.....	2,103	
23612 53	Chiefly manmade (nylon, acrylic, rayon, etc.).....	184	
23612 59	Fabrics except chiefly cotton and chiefly manmade.....	3	
23612 60	Fabric, n.s.k.....		
23612 19	Girls', children's, infants', and toddlers' sweatshirts.....	193	
23612 98	Girls', children's, infants', and toddlers' knit shirts, n.s.k.....	331	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Quantity for this item was estimated based on the unit price relationship for all other items in this product class.

<sup>2</sup>Contract receipts are not included in the total shown for children's dresses. For 1963 and 1967, contract receipts include all receipts for work on children's dresses and blouses done for others on their materials regardless of the industry classification of the establishment.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2362.—CHILDREN'S DRESSES AND BLOUSES				
	Materials, containers, and supplies, total.....	(X)	162.4	(X)	156.0
	Broadwoven fabrics, total.....	117.5	71.2	184.3	90.3
220124	Suiting and coating piece goods, excluding linings.....	6.2	4.7	3.4	2.6
220125	All other piece goods, including linings.....	111.3	66.5	180.9	87.7
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	49.3	35.0	21.6	19.1
970099	All other materials, containers, supplies, components, etc.....	(X)	15.0	(X)	14.3
976000	Materials, containers, supplies, n.s.k.....	(X)	41.2	(X)	32.3

(X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

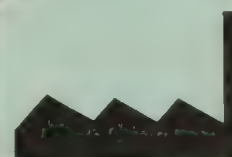
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-23C-6

## INDUSTRY SERIES

**preliminary  
report**

### Children's coats and suits

SIC Code 2363

The Girls', Children's, and Infants' Coats and Suits Industry includes establishments primarily engaged in manufacturing girls', children's and infants' coats and suits, cut and sewed from purchased woven or knit fabric. Knitting mills primarily engaged in manufacturing outerwear are classified in industry 2253.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Children's Coats and Suits Industry amounted to \$175.4 million, an increase of 7.7 percent compared with 1963. Value added by

manufacture at \$78.4 million in 1967 was 7.8 percent more than value added in 1963. Average employment in the industry showed a decrease of 7.6 percent from 1963 to a total of 10.9 thousand employees in 1967.

Of the \$175.4 million total value of shipments and other receipts of establishments classified in the Children's Coats and Suits Industry, \$9.1 million were products primary to other industries; and \$25.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2363.--CHILDREN'S COATS AND SUITS														
1967 Census....	232	136	10.9	46.0	9.6	17.7	34.4	78.4	96.0	175.4	1.4	15.6	94	87
1966 ASM <sup>1</sup> .....	(NA)	(NA)	12.2	45.3	10.4	17.9	33.4	77.6	109.1	185.4	*2.7	19.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	11.4	43.7	10.1	18.0	33.0	75.1	95.5	169.5	*1.3	15.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	11.9	48.8	10.5	19.6	36.0	81.4	95.0	176.3	*3.7	16.6	(NA)	(NA)
1963 Census....	285	152	11.8	43.0	10.4	18.6	32.9	72.7	88.9	162.9	1.1	16.4	92	85
1962 ASM <sup>1</sup> .....	(NA)	(NA)	12.0	40.5	10.9	20.1	32.7	65.6	96.4	161.9	*1.4	14.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	13.8	42.9	12.4	21.6	33.7	67.2	104.9	171.9	*0.6	14.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	14.3	46.2	12.8	22.3	35.0	74.6	108.3	182.8	(S)	15.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*13.8	*44.9	*12.0	*21.4	*34.0	*67.1	*102.7	*168.7	(S)	*15.6	(NA)	(NA)
1958 Census <sup>2</sup> ...	370	210	12.8	42.4	11.0	19.5	31.5	68.2	95.3	163.8	0.8	13.9	95	85

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 6, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

The total value of children's coats and suits shipped by all producers in 1967 was \$162.5 million of which \$140.6 million, or 87 percent, were shipped by plants classified in industry 2363, Children's Coats and Suits, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 85 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2363.--CHILDRENS'S COATS AND SUITS												
United States, total.....	232	136	10.9	46.0	9.6	17.7	34.4	78.4	96.0	175.4	1.4	11.8	72.7
New England.....	13	9	0.7	2.9	0.6	1.2	2.4	4.7	2.0	6.7	(Z)	0.6	2.9
New York.....	116	57	3.7	19.4	3.1	5.6	13.0	38.2	65.2	103.9	0.5	4.0	32.1
Pennsylvania.....	22	16	1.7	7.2	1.5	2.7	5.0	10.7	9.5	20.2	(D)	2.4	11.3
South.....	12	11	1.9	5.9	1.8	3.8	5.3	8.2	3.2	11.3	(D)	1.8	7.8
North Carolina.....	4	4	0.9	2.6	0.9	1.9	2.4	3.6	1.1	4.7	0.1	1.1	5.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozen)	Value (million dollars)	Quantity (1,000 dozen)	Value (million dollars)
2363- --	CHILDREN'S COATS AND SUITS, TOTAL.....	(X)	162.5	2,193	148.7
23630 00	Girls', children's and infants' coats, suits, snow suits, and coat-and-legging sets.....	<sup>e</sup> 2,459	160.1	2,193	148.7
23630 02	Girls', children's and infants' coats, suits, snow suits, and coat-and-legging sets, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	2.4		
	AS REPORTED ON THE MA-23A				
23620 00	Girls' children's, and infants coats, suits, snow suits, and coat-and-legging sets.....	2,469	(NA)	2,075	148.9
	Coats, excluding coat-and-legging sets, total.....	897	(NA)	1,765	148.9
23630 13	Girls', subteen, and teenage girls coats, total.....	358	(NA)	362	
23630 31	Chiefly wool.....	205	(NA)	231	
23630 33	Fabrics except chiefly wool.....	126	(NA)	131	
23630 39	Fabric, n.s.k.....	27	(NA)	-	
23630 14	Children's coats, total.....	421	(NA)	308	
23630 34	Chiefly wool.....	127	(NA)	235	
23630 36	Fabrics except chiefly wool.....	233	(NA)	73	
23630 88	Fabric, n.s.k.....	61	(NA)	-	
23630 15	Infants' and toddlers' coats, total.....	118	(NA)	95	
23630 37	Chiefly wool.....	27	(NA)	56	
23630 38	Fabrics except chiefly wool.....	79	(NA)	39	
23630 89	Fabric, n.s.k.....	12	(NA)	-	
23630 17	Girls' and children's legging and coat-and-snowpants sets.....	161	(NA)	130	
23630 18	Infants' and toddlers' coat-and-legging and coat-and-snowpants sets.....	60	(NA)		
	Girls' and children's ski and snow suits, total.....	209	(NA)	192	
23630 22	Girls', subteen, and teenage girls'.....	95	(NA)	192	
23630 24	Children's.....	77	(NA)		
23630 29	Girls' and children's ski and snow suits, n.s.k.....	37	(NA)		
23630 26	Infants' and toddler's ski snow suits.....	128	(NA)	126	
	Suits, total.....	355	(NA)	239	
23630 05	Girls, subteen, and teenage girls' suits.....	146	(NA)	82	
23630 06	Little girls' suits.....	<sup>r</sup> 93	(NA)	86	
23630 07	Little boys' suits, excluding wash suits.....	116	(NA)	71	
23630 28	Girls', children's, infants', and toddlers' jackets.....	634	(NA)	531	
23630 98	Girls', children's, and infants' coats, suits, and jackets, n.s.k.....	25	(NA)	-	
23639 11	Receipts for contract work on girls', teenage girls', children's and infants' coats, snow suits, coat-and-legging sets and suits.....	(X)	<sup>2</sup> 25.6	(X)	<sup>2</sup> 23.7

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

- Represents zero. <sup>e</sup> From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind.

<sup>r</sup> Revised. (X) Not applicable.

<sup>1</sup>For 1963, production data for girls' children's, and infants' coats are reported in units on Census annual form MA-23A, but have been converted to dozens in this table to be consistent with all other cuttings data shown on this table.

<sup>2</sup>Contract receipts are not included in the total shown for children's coats and suits. Contract receipts include all receipts for work on children's coats and suits for others on their material regardless of the industry classification of the establishment.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2363.--CHILDREN'S COATS AND SUITS				
	Materials, containers, and supplies, total.....	(X)	66.4	(X)	63.6
	Broadwoven fabrics, total.....	(NA)	36.8	40.9	43.6
220124	Suiting and coating piece goods, excluding linings.....	18.3	25.1	18.0	29.5
220125	All other piece goods, including linings.....	(NA)	11.7	22.9	14.1
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	3.1	3.7	0.9	1.5
970099	All other materials, containers, supplies, components, etc.....	(X)	5.3	(X)	6.6
976000	Materials, containers, supplies, n.s.k.....	(X)	20.6	(X)	11.9

(NA) Not available.      n.s.k. Not specified by kind.      (X) Not applicable.



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**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

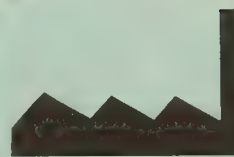
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-23C-7

## INDUSTRY SERIES

**preliminary  
report**

### Children's outerwear, n.e.c.

SIC Code 2369

The Girls', Children's, and Infants' Outerwear, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing girls', children's, and infants' outerwear, not elsewhere classified, cut and sewed from purchased woven or knit fabric. Knitting mills primarily engaged in manufacturing outerwear are classified in industry 2253.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Children's Outerwear, N.E.C., Industry amounted to \$443.5 million, an increase of 5.7 percent compared with 1963. Value added by manufacture at \$213.0 million in 1967 was 13.1 percent more than value added in 1963. Average employment in the industry showed a decrease of 7.3 percent from 1963 to a total of 31.7 thousand employees in 1967.

Of the \$443.5 million total value of shipments and other receipts of establishments classified as

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2369.--CHILDREN'S OUTERWEAR, N.E.C.													
1967 Census....	477	283	31.7	116.3	28.5	53.1	94.3	213.0	236.0	443.5	4.2	67.8	81	64
1966 ASM <sup>1</sup> .....	(NA)	(NA)	38.1	127.0	34.6	63.7	106.1	204.1	231.2	438.1	*4.6	59.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	35.1	115.4	31.9	60.8	95.7	192.6	228.9	421.3	2.6	64.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	35.7	114.2	31.8	59.7	91.5	197.9	241.9	436.8	*1.7	67.2	(NA)	(NA)
1963 Census....	624	360	34.2	107.0	30.4	56.1	84.4	188.3	233.3	419.6	2.8	64.8	79	67
1962 ASM <sup>1</sup> .....	(NA)	(NA)	31.8	94.4	28.2	53.1	74.1	146.5	190.2	335.5	*1.9	41.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	30.8	88.1	27.4	51.1	70.3	140.7	176.4	315.1	*1.7	39.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	30.7	86.5	27.4	51.5	68.8	130.2	179.3	307.8	(S)	40.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*33.4	92.2	29.8	54.9	73.6	143.5	192.3	333.9	(S)	42.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	756	377	31.9	87.9	28.2	50.5	68.7	146.0	177.8	324.1	2.4	43.4	79	63

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

n.e.c. Not elsewhere classified. (NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

producers of children's outerwear, n.e.c., \$72.1 million were products primary to other industries; and \$71.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 81 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 79 percent in 1963.

The total value of children's outerwear, n.e.c., shipped by all producers in 1967 was \$466.2 million of which \$299.7 million, or 64 percent,

were shipped by plants classified in industry 2369, Children's Outerwear, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 67 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2369, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23A, Apparel Survey.

During the review of the Census, it was determined that some companies are reporting incorrectly on the Apparel Survey. A comprehensive review of the Apparel Survey data will be undertaken during the review for the 1968 survey. Revised 1967 data will be shown in that publication.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2369.--CHILDREN'S OUTERWEAR, N.E.C.												
United States, total.....	477	283	31.7	116.3	28.5	53.1	94.3	213.0	236.0	443.5	4.2	34.2	188.3
New England.....	24	16	3.0	11.4	2.7	5.2	9.1	26.7	23.8	49.3	0.3	3.3	25.4
Middle Atlantic.....	295	153	10.4	41.0	9.2	16.4	30.9	84.1	127.9	209.6	(D)	13.6	85.0
New York.....	224	110	7.1	29.8	6.2	11.2	22.0	60.8	96.8	155.8	(D)	9.9	63.9
New Jersey.....	31	15	1.1	3.5	0.9	1.6	2.6	7.9	8.9	16.5	(D)	1.2	7.0
Pennsylvania.....	40	28	2.2	7.7	2.1	3.6	6.3	15.4	22.2	37.3	0.1	2.4	14.1
East North Central....	16	13	1.2	4.5	1.1	2.2	4.0	8.7	7.0	15.0	(D)	1.3	6.3
Illinois.....	7	5	0.2	0.9	0.2	0.4	0.7	1.3	0.3	1.6	(D)	(D)	(D)
West North Central....	12	7	0.8	3.0	0.7	1.3	2.4	4.7	2.3	7.0	(D)	0.8	6.3
South Atlantic.....	67	54	9.8	33.5	9.0	16.8	28.1	48.6	38.4	84.6	(D)	10.0	38.8
Maryland.....	5	3	0.3	1.2	0.3	0.6	1.1	1.8	1.2	3.0	(D)	0.4	1.8
Virginia.....	10	8	1.3	4.0	1.3	2.3	3.7	4.8	1.8	6.6	0.1	(D)	(D)
North Carolina.....	16	13	3.3	10.7	3.1	5.9	9.7	14.0	15.3	28.6	(D)	2.0	7.6
Georgia.....	13	10	1.4	4.1	1.2	2.2	3.2	8.0	4.2	11.9	(D)	1.7	7.1
East South Central....	15	14	3.8	13.3	3.4	6.6	11.6	22.5	20.5	44.2	(D)	2.0	9.1
Alabama.....	9	9	2.1	7.7	2.0	3.9	7.1	14.3	14.0	29.4	(D)	(D)	(D)
West South Central....	12	9	1.5	4.9	1.4	2.7	4.2	8.6	9.2	17.7	0.1	2.0	9.1
West.....	36	17	1.2	4.8	1.1	2.0	3.9	9.1	7.1	16.2	0.2	1.3	8.3
California.....	33	15	1.1	4.5	1.0	1.9	3.7	8.6	6.7	15.2	(D)	1.2	7.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozens)	Value (million dollars)	Quantity (1,000 dozens)	Value (million dollars)
2369- -- 2253- --	CHILDREN'S OUTERWEAR, N.E.C., TOTAL <sup>1 2</sup> .....	(X)	466.2	(X)	435.8
23690 11	Girls', children's, and infants' outerwear made from woven fabric.....	15,431	291.6	(X)	285.9
	Tufted robes.....	165	4.4	37	1.0
23690 20	Swimwear: <sup>3</sup> .....	676	17.8	430	10.1
23690 40	Play garments, including playsuits, playshorts, dungarees, jeans, slacks <sup>4</sup> .....	12,989	225.9	15,570	216.5
23690 50	Other woven fabric outerwear, including skirts, robes (terry cloth, quilted), headwear, neckwear, etc.....	<sup>e</sup> 1,601	43.5	2,090	58.3
	Girls', children's, and infants' outerwear made from knit fabric <sup>2</sup> .....	6,151	135.0	(X)	129.9
22531 60 23690 70	Sweaters, jackets, jerseys, pullovers, cardigans and sacques:				
	As reported in the census of manufactures.....	2,382	58.9	2,870	60.6
22531 60	Made in knitting mills.....	1,595	43.6	2,183	49.8
23690 70	Made in cut-and-sew shops.....	787	15.1	687	10.8
	As reported on Census Annual Form MA-23A.....	2,319	(NA)	2,893	62.3
22533 60 23690 90	Other knit outerwear, including play garments, creepers, buntings, rompers, and swimwear <sup>3</sup> .....	3,769	76.1	(X)	69.3
	Made in knitting mills.....	1,514	27.6	(X)	29.2
	Made in cut-and-sew shops.....	2,255	48.5	(X)	40.1
23690 00	Girls', children's, and infants' outerwear, n.e.c., n.s.k. (For companies with 10 employees or more. See Note.).....	(X)	34.8	(X)	20.0
23690 02	Girls', children's, and infants' outerwear, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	4.8		
23699 11	Receipts for contract work on childrens outerwear, n.e.c., done for others on their materials.....	(X)	<sup>5</sup> 68.9	(X)	<sup>5</sup> 46.0
Product code	Product	Total quantity (1,000 dozens cut)			
		1967	1963		
	(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL)				
	Skirts, total.....	1,162	1,352		
23690 05	Girls', subteen, and teenage girls', total.....	979	1,005		
23690 31	Chiefly cotton.....	238	1,005		
23690 32	Chiefly wool.....	413			
23690 33	Fabrics except chiefly cotton and chiefly wool.....	195			
23690 95	Fabric, n.s.k.....	133			
	Children's and infants', total.....	183	347		
23690 06	Children's, total.....	130	347		
23690 34	Chiefly cotton.....	44			
23690 35	Chiefly wool.....	25			
23690 36	Fabrics except chiefly cotton and chiefly wool.....	42			
23690 96	Fabric, n.s.k.....	18			
23690 07	Infants' and toddlers', total.....	5	5		
23690 37	Chiefly cotton.....				
23690 38	Chiefly wool.....				
23690 39	Fabrics except chiefly cotton and chiefly wool.....				
23690 97	Children's and infants' skirts, n.s.k.....	46	(X)		
23690 22	Girls', subteen and teenage girls' slacks, total.....	1,018	713		
23690 41	Girls', subteen and teenage girls' dungarees and jeans.....	388	461		
	Girls', subteen and teenage girls' play garments, total <sup>6</sup> .....	3,090	3,214		
23690 42	Shorts, pedal pushers, jamaicas, bermudas, etc. <sup>6</sup> .....	3,054	3,214		
23690 44	Playgarments such as playsuits, halter-tops, etc.....				
23690 49	Girls', subteen and teenage girls' playgarments, n.s.k.....			36	(X)
23690 45	Children's dungarees and jeans.....	2,368	1,326		
23690 46	Children's slacks and shorts.....	4,034	2,759		

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total quantity (1,000 dozens cut)	
		1967	1963
	(AS REPORTED ANNUALLY ON CENSUS FORM MA-23A, APPAREL)--Continued		
23690 48	Children's and infants' play garments including playsuits and halter-tops <sup>u</sup> .....	8,158	7,506
23690 82	Infants' and toddlers' creepers and rompers.....	2,307	2,262
	Swimsuits, total.....	1,534	1,163
23690 63	Girls', subteen and teenage girls' swimsuits, total.....	697	769
23690 65	Knit fabric.....	275	571
23690 69	Woven fabric.....	89	198
23690 98	Construction, n.s.k.....	333	(X)
23690 73	Children's and toddlers' swimsuits, total.....	837	394
23690 74	Knit fabric.....	498	186
23690 78	Woven fabric.....	161	208
23690 99	Construction, n.s.k.....	178	(X)
22531 13	Girls', subteen, and teenage girls' sweaters, total.....	764	1,107
22531 61	Chiefly manmade fibers (nylon, acrylic, etc.).....	648	1,107
22531 63	Chiefly wool.....	6	
22531 69	Fibers including mixtures and blends, except chiefly manmade.....	30	
22531 70	Fiber, n.s.k.....	80	
22531 15	Children's sweaters, total.....	1,049	1,053
22531 71	Chiefly wool.....	18	1,053
22531 73	Chiefly manmade fibers (nylon, acrylic, etc.).....	706	
22531 79	Fibers including mixtures and blends, except chiefly wool and manmade.....	287	
22531 80	Fiber, n.s.k.....	38	
22531 17	Infants' and toddlers' sweaters and sacques, total.....	506	740
22531 81	Chiefly wool.....	-	740
22531 83	Chiefly manmade fibers (nylon, acrylic, etc.).....	344	
22531 89	Fibers including mixtures and blends, except chiefly wool and manmade.....	77	
22531 90	Fiber, n.s.k.....	85	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.e.c. Not elsewhere classified. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Establishments primarily engaged in the manufacture of girls', children's, and infants' dresses, blouses, waists and shirts are classified in industry 2361, and coats and suits in industry 2363.

<sup>2</sup>During the review of the 1967 Census, it was found that some companies were misclassifying certain items on the MA-23A, but during the Census revised these classifications to boys' items. A thorough review of this problem will be undertaken in the 1966 Apparel Survey and any revisions to 1967 data will be shown in that report.

<sup>3</sup>For 1967, a large number of companies did not report a detailed breakdown between knit and woven swimwear on the MA-23A, Apparel Survey. Therefore, these MA-23A and Census data for women's swimwear are not directly comparable. Total swimwear as reported on the MA-23A is shown in table 3B.

<sup>4</sup>On the MA-23A, Apparel Survey for 1967, respondents were not asked to report a breakdown between knit and woven playgarments. Total figures for playgarments as reported on the MA-23A are shown in table 3B.

<sup>5</sup>Contract receipts are not included in the total shown for these products.

<sup>6</sup>Review of the reports filed in the 1967 Census of Manufactures indicates that these data may be overstated. A thorough investigation of this problem is now in progress and revised data if necessary will be shown in the 1968 Apparel Survey, Series MA-23A.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2369.--CHILDREN'S OUTERWEAR, N.E.C.				
	Materials, containers, and supplies, total.....	(X)	177.8	(X)	174.0
	Broadwoven fabrics, total.....	132.3	81.6	184.2	103.6
220124	Suiting and coating piece goods, excluding linings.....	16.1	13.8	13.1	11.4
220125	All other piece goods, including linings.....	116.2	67.8	171.1	92.2
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	<sup>e</sup> 29.8	38.3	36.0	28.8
970099	All other materials, containers, supplies, components, etc.....	(X)	18.5	(X)	20.3
976000	Materials, containers, and supplies, n.s.k.....	(X)	39.4	(X)	21.2

<sup>e</sup> From 10 to 30 percent of this figure was estimated.

n.s.k. Not specified by kind.

(X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2369, these small establishments accounted for approximately 1.0 percent of payrolls and 1.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

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# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE  
Bureau of the Census**

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Washington, D.C. 20233

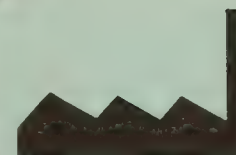
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

## preliminary report

### Fur goods

SIC Code 2371

The Fur Goods Industry includes establishments primarily engaged in manufacturing fur-coats, and other garments, accessories, and trimmings made of fur. Establishments primarily engaged in manufacturing sheep-lined clothing are classified in industry 2386, and those engaged in dying and dressing of furs in industry 3999.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Fur Goods Industry amounted to \$332.8 million, a decrease of 0.5 percent compared with

1963. Value added by manufacture at \$117.1 million in 1967 was 5.9 percent more than value added in 1963. Average employment in the industry showed a decrease of 8.6 percent from 1963 to a total of 8.5 thousand employees in 1967.

Of the \$332.8 million total value of shipments and other receipts of establishments classified as fur goods manufacturers, \$1.3 million were products primary to other industries; and \$9.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 100 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 99 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2371.--FUR GOODS													
1967 Census....	1,305	88	8.5	59.3	7.3	13.2	47.4	117.1	215.4	332.8	2.0	33.3	100	100
1966 ASM <sup>1</sup> .....	(NA)	(NA)	9.6	62.2	8.1	14.5	46.2	127.6	241.7	365.1	*1.0	44.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	9.4	60.5	8.2	14.9	47.4	118.4	245.4	360.5	1.0	44.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	9.8	62.5	7.9	15.1	49.1	103.6	229.9	336.8	0.3	39.3	(NA)	(NA)
1963 Census....	1,591	94	9.3	56.0	7.7	14.5	45.6	110.6	225.2	334.4	1.2	42.9	99	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*9.6	*60.0	*8.0	*15.0	*45.5	*115.3	*270.3	*402.7	*1.4	*48.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*9.8	*58.5	*8.2	*15.3	*44.6	*108.1	*274.8	*383.8	*2.6	*41.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*9.5	*53.6	*8.1	*15.6	*43.3	*96.3	*240.5	*337.5	*1.9	*45.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*9.2	*50.1	*7.6	*14.2	*39.1	*91.7	*217.7	*308.8	*2.0	*39.8	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,651	78	9.4	50.5	7.9	13.6	41.7	95.4	187.0	281.3	2.6	43.2	99	100

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 6, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of fur goods shipped by all producers in 1967 was \$322.3 million of which \$321.9 million, or 100 percent, were shipped by plants classified in industry 2371, Fur Goods, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2371.--FUR GOODS												
United States, total.....	1,305	88	8.5	59.3	7.3	13.2	47.4	117.1	215.4	332.8	2.0	9.3	110.6
Northeast.....	1,200	80	7.9	56.0	6.7	12.2	44.7	109.7	206.3	316.3	1.9	8.7	103.9
Middle Atlantic....	1,196	80	7.9	55.9	6.7	12.2	44.7	109.5	206.1	316.0	1.9	8.6	103.2
New York.....	1,174	78	7.7	55.3	6.6	12.0	44.2	108.5	204.5	313.3	1.9	8.4	102.2
Pennsylvania.....	16	1	0.1	0.4	0.1	0.1	0.3	0.5	0.9	1.6	(D)	0.1	0.9
North Central.....	52	3	0.2	1.3	0.2	0.4	1.0	3.0	4.5	7.5	(D)	0.3	3.2
East North Central..	47	3	0.2	1.2	0.2	0.3	0.9	2.5	3.5	6.0	(D)	0.2	2.6
Illinois.....	70	1	0.1	0.7	0.1	0.2	0.5	1.6	2.3	3.9	(Z)	0.1	1.6
South.....	6	3	0.2	0.9	0.2	0.3	0.8	1.6	0.7	2.3	(D)	0.1	0.7
Pacific.....	47	2	0.2	1.1	0.2	0.3	0.8	2.8	3.9	6.7	(Z)	0.3	2.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total value of shipments including interplant transfers (million dollars)	
		1967	1963
2371- --	FUR GOODS, TOTAL.....	322.3	312.4
23710 11	Fur coats, capes, jackets, neck pieces, fur linings, and other fur garments, accessories, and trimmings.....	293.5	312.4
23710 02	Fur coats, capes, jackets, neck pieces, fur linings, and other fur garments, accessories, and trimmings (Represents companies with less than 10 employees. See Note.).....	28.8	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Product code	Product	Delivered cost (million dollars)
		1967
	INDUSTRY 2371.--FUR GOODS	
	Materials, containers, and supplies, total.....	209.4
019301	Raw furs.....	54.7
399961	Dressed furs (including dyed and blended furs).....	79.9
970099	All other materials, containers, supplies, components, etc.....	11.1
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	63.7

n.s.k. Not specified by kind.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed material data for 1967, this includes estimates for companies which were not sent report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2371, these small establishments accounted for approximately 6.7 percent of payrolls and 9.7 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

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# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-23D-2

## INDUSTRY SERIES

### Fabric dress and work gloves

SIC Code 2381

**preliminary  
report**

The Dress and Work Gloves, Except Knit and All-Leather Industry includes establishments primarily engaged in manufacturing dress, semi-dress, and work gloves and mittens, cut and sewed from purchased woven or knit fabric, or these materials combined with leather. Knitting mills primarily engaged in manufacturing gloves and mittens are classified in industry 2259, establishments primarily engaged in manufacturing leather gloves in industry 3151, those manufacturing rubber gloves in industry 3069, and plastic gloves in industry 3079.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Fabric Dress and Work Gloves Industry amounted to \$176.5 million, an increase of 18.1 percent compared with 1963. Value added by manufacture at \$86.7 million in 1967 was 27.8 percent more than value added in 1963. Average employment in the industry showed an increase of 9.4 percent from 1963 to a total of 14.0 thousand employees in 1967.

Of the \$176.5 million total value of shipments and other receipts of establishments classified as fabric dress and work gloves manufacturers, \$16.8 million were products primary to other industries; and \$25.9 million were receipts for miscellaneous activities. The industry shipments

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expend- itures, new	End-of- year inventories	Special- ization ratio	Coverage ratio
	Total	With 20 employ- ees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2381.--FABRIC DRESS AND WORK GLOVES													
1967 Census....	<sup>3</sup> 173	109	14.0	48.6	13.0	24.5	41.6	86.7	94.7	176.5	2.0	26.0	89	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	15.9	53.4	14.4	27.8	43.3	93.8	114.0	205.9	*1.9	30.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	*15.0	*46.8	*13.7	*26.4	*39.1	*89.2	*97.2	*184.3	*1.4	*28.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	12.6	38.2	11.7	21.2	33.0	60.9	83.5	155.8	*2.6	24.6	(NA)	(NA)
1963 Census....	197	103	12.8	36.7	11.9	21.3	31.5	68.4	82.2	149.5	1.1	26.0	94	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	15.3	39.9	13.1	24.1	33.6	77.5	85.1	162.0	*1.9	29.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	16.1	40.3	13.8	24.6	33.7	71.7	85.9	155.9	*1.0	31.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	15.4	37.7	13.0	24.3	31.8	59.6	72.3	132.0	*1.0	28.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	16.0	39.5	13.8	25.8	33.9	66.9	74.7	140.2	*1.0	29.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	228	130	13.9	32.9	12.6	21.9	27.2	53.9	64.3	118.7	0.6	26.6	94	84

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 5, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary****Rocco C. Siciliano, Under Secretary****Harold C. Passer, Assistant Secretary for Economic Affairs****BUREAU OF THE CENSUS George Hay Brown, Director**

of primary products represented 89 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

The total value of fabric dress and work gloves shipped by all producers in 1967 was \$154.8 million of which \$133.8 million, or 86 percent, were shipped by plants classified in industry 2381, Fabric Dress and Work Gloves, while the

remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2381, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-23D, Gloves and Mittens.

The two sets of data differ primarily because of the different reporting pattern by establishments reporting data on both surveys.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
INDUSTRY 2381.--FABRIC DRESSES AND WORK GLOVES													
United States, total.....	173	109	14.0	48.6	13.0	24.5	41.6	86.7	94.7	176.5	2.0	12.8	68.4
Northeast.....	70	27	2.1	8.1	1.9	3.4	6.5	13.9	24.6	38.4	0.3	2.9	20.9
New York.....	51	14	1.1	4.4	1.0	1.8	3.5	16.5	13.6	20.1	0.1	1.8	16.1
North Central.....	50	37	3.7	13.6	3.4	6.4	10.8	23.4	27.5	48.7	0.5	4.0	21.9
Ohio.....	9	■	1.0	4.7	0.9	1.6	3.3	10.3	8.3	17.2	(D)	0.9	6.2
Michigan.....	7	3	0.2	0.7	0.1	0.3	0.4	1.5	3.5	4.9	(Z)	0.2	1.5
Missouri.....	4	■	0.5	1.7	0.5	0.9	1.5	2.7	3.5	5.8	(D)	0.6	2.8
South Atlantic.....	16	15	3.0	9.9	2.8	5.6	8.9	16.6	16.1	32.3	0.6	1.7	6.4
North Carolina.....	9	■	1.7	5.5	1.5	3.1	5.0	10.3	9.9	20.2	0.3	1.3	5.6
East South Central....	17	16	3.4	10.7	3.2	5.8	9.8	24.3	17.8	39.9	0.2	2.9	13.1
Tennessee.....	6	5	1.2	3.6	1.0	1.9	3.2	7.0	6.4	12.8	0.1	1.2	5.7
West South Central....	■	8	1.3	4.2	1.2	2.2	3.8	6.9	6.3	13.2	0.4	1.1	4.8
Pacific.....	10	■	0.3	1.0	0.3	0.5	0.9	1.6	2.4	4.0	(Z)	0.3	1.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 pairs)	Value (million dollars)	Quantity (1,000 pairs)	Value (million dollars)
2381- -- 2259 pt.	FABRIC DRESS AND WORK GLOVES, TOTAL.....	(X)	154.8	(X)	144.9
23811 -- 2259 pt.	Dress gloves and mittens, including leather-and-fabric combination: As reported in the census of manufactures.....	2,358	31.6	3,329	47.9
23811 10	Made in cut-and-sew shops.....	1,568	22.3	2,314	37.2
23811 40	Men's and boys' and women's and misses' woven fabric, and leather- and-fabric combination.....	1,568	22.3	355	5.6
23811 52	Men's and boys' and women's and misses' knitted fabric.....			1,652	28.6
	Children's and infants' textile gloves and mittens.....			307	3.0
22590 10	Made in knitting mills.....	790	9.3	1,015	10.7
	As reported on Census annual Form MA-23D <sup>1</sup> .....	2,447	31.1	<sup>1</sup> 3,353	(NA)
23812 00 22590 pt.	Work gloves and mittens, including leather-and-fabric combination: As reported in the census of manufactures.....	26,491	117.1	21,474	91.5
23812 00 22590 70	Made in cut-and-sew shops.....	25,792	112.0	20,878	88.3
	Made in knitting mills.....	699	5.1	596	3.2
	As reported on Census annual Form MA-23D <sup>1</sup> .....	27,059	121.0	<sup>1</sup> 21,598	(NA)
23810 00	Fabric dress and work gloves, n.s.k. (Represent companies with 10 or more employees. See Note.).....	(X)	3.6	(X)	5.5
23810 02	Fabric dress and work gloves, n.s.k. (Represents companies with less than 10 employees. See Note.).....	(X)	2.5		
Product code	Product	1967 Shipments		1963 Quantity of production	
		Quantity (1,000 pairs)	Value (million dollars)	Quantity (1,000 pairs)	
	AS REPORTED ANNUALLY ON CENSUS ANNUAL FORM MA-23D, GLOVES AND MITTENS <sup>2</sup>				
	Dress and semidress gloves and mittens, total.....	2,447	31.1		3,353
23811 11	All woven fabric.....	233	1.0		
23811 41	All knit fabric, seamed (cut and sewn).....	1,290	19.9		
23811 43	Nylon.....	944	(X)		
23811 49	Fabrics, except nylon.....	346	(X)		3,353
22590 11	All knit fabric, seamless.....	741	6.8		
23811 15	Leather and fabric combination.....	183	3.4		
	Work gloves and mittens, total.....	27,059	121.0		21,598
23812 10	All fabric.....	24,645	91.5		19,336
23812 22	Single canton flannel.....	8,840	(X)		6,773
23812 24	Double canton flannel.....	3,707	(X)		2,554
23812 32	Fleeced cotton jersey.....	3,804	(X)		3,483
23812 34	Circular knit cotton.....	4,172	(X)		3,104
23812 38	Coated and partially coated fabrics.....	2,889	(X)		1,796
23812 47	Fabrics, except single, double, fleeced, circular, or coated.....	1,231	(X)		1,629
23812 15	Leather and fabric combination.....	2,414	29.5		2,262

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1963 data represents quantity of production rather than quantity of shipments.

<sup>2</sup>Source: Current Industrial Reports Series MA-23D, Gloves and Mittens, 1968 released June 27, 1969 and 1964 released January 19, 1966.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2381. FABRIC DRESS AND WORK GLOVES					
	Materials, containers, supplies, etc., total.....		(X)	73.8	(X)	64.0
220123	Broadwoven fabrics (cotton, wool, manmade fiber fabrics, etc.)..	million lin. yds.	(NA)	28.3	54.6	25.4
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	...do.....	17.0	14.8	19.9	11.9
311100	Finished leather.....	million sq. ft...	42.0	10.0	29.8	6.5
970099	All other materials, containers, and supplies.....		(X)	12.0	(X)	15.9
976000	Materials, containers, supplies, n.s.k.....		(X)	8.8	(X)	4.3

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2381, these small establishments accounted for approximately 1.0 percent of payrolls and 1.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-73D-3

## INDUSTRY SERIES

### Robes and dressing gowns

SIC Code 2384

**preliminary  
report**

The Robes and Dressing Gowns Industry includes establishments primarily engaged in manufacturing men's and women's robes and dressing gowns.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Robes and Dressing Gowns Industry amounted to \$203.0 million, an increase of 17.0 percent compared with 1963. Value added by manufacture at \$83.5 million in 1967 was 21.5

percent more than value added in 1963. Average employment in the industry showed a decrease of 2.5 percent from 1963 to a total of 11.6 thousand employees in 1967.

Of the \$203.0 million total value of shipments and other receipts of establishments classified as producers of robes and dressing gowns, \$7.1 million were products primary to other industries; and \$23.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 96 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2381.--ROBES AND DRESSING GOWNS													
1967 Census....	<sup>3</sup> 242	140	11.6	44.1	10.4	18.1	33.9	83.5	119.4	203.0	1.5	18.6	96	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	12.1	44.4	10.7	19.7	34.4	78.8	119.2	198.3	*0.7	12.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	12.2	42.5	10.8	20.1	33.9	73.3	114.2	187.6	0.6	14.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	11.3	36.0	9.9	17.8	27.8	59.5	112.7	172.4	*1.3	13.6	(NA)	(NA)
1963 Census....	271	144	11.9	37.4	10.5	18.9	29.1	68.7	105.3	173.4	0.8	13.6	96	94
1962 ASM <sup>1</sup> .....	(NA)	(NA)	13.2	38.7	11.9	19.7	29.6	66.3	65.7	132.1	1.4	11.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	12.3	36.1	11.1	17.8	27.4	64.4	62.4	124.7	0.8	12.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	12.8	34.6	11.6	18.3	26.0	55.3	64.6	119.8	(S)	12.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	11.2	31.2	9.9	16.2	23.2	48.7	60.9	109.8	(S)	11.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	278	155	10.6	30.5	9.3	16.0	22.8	56.4	76.2	132.7	0.5	12.5	93	96

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued December 1969

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of robes and dressing gowns shipped by all producers in 1967 was \$180.8 million of which \$172.6 million, or 95 percent, were shipped by plants classified in industry 2384, Robes and Dressing Gowns, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 94 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2384. --ROBES AND DRESSING GOWNS												
United States, total.....	242	140	11.6	44.1	10.4	18.1	33.9	83.5	119.4	203.0	1.5	11.9	68.7
Northeast.....	187	104	6.7	28.9	5.9	10.2	21.5	60.5	97.7	158.1	1.0	7.6	49.8
New York.....	145	73	3.6	16.5	3.1	5.1	11.6	36.4	70.5	106.9	0.5	4.5	34.3
Pennsylvania.....	14	13	1.7	6.7	1.5	2.7	5.3	13.8	15.5	28.9	0.2	1.8	8.8
North Central.....	12	8	0.9	3.3	0.8	1.5	2.5	6.0	6.0	12.1	(Z)	0.7	3.9
Illinois.....	7	3	0.5	1.5	0.4	0.7	1.1	2.7	3.1	5.8	(Z)	(D)	(D)
South.....	31	25	3.6	10.8	3.4	5.9	9.1	15.4	13.6	29.2	0.4	3.3	14.3
South Atlantic.....	24	19	2.5	7.5	2.3	4.1	6.3	10.8	10.8	21.5	0.3	(D)	(D)
South Carolina.....	11	5	0.8	2.4	0.7	1.3	2.0	3.4	1.9	5.3	0.1	0.6	2.2
Georgia.....	7	6	0.8	2.4	0.8	1.4	2.1	3.4	3.5	6.8	0.1	(D)	(D)
California.....	12	5	0.3	1.0	0.3	0.4	0.8	1.6	2.2	3.7	(Z)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers <sup>1</sup>			
		1967		1963	
		Quantity (1,000 dozen)	Value (million dollars)	Quantity (1,000 dozen)	Value (million dollars)
2384- --	ROBES AND DRESSING GOWNS, TOTAL.....	(X)	180.8	(X)	160.1
23840 11	Men's and boys' robes and dressing gowns, including smoking jackets.....	(NA)	28.6	410	24.6
	Women's misses', and juniors' robes, dressing gowns, breakfast coats, brunch coats, and housecoats, total.....	2,442	116.7	2 3,043	114.8
23840 41	Terry cloth fabrics.....	(1)	(1)	3,043	114.8
23840 52	Tufted robes.....				
23840 61	All other fabrics except terry cloth and tufted.....				
23840 00	Robes and dressing gowns, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	30.8	(X)	20.7
23840 02	Robes and dressing gowns, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	4.7		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1967 separate data were collected for type of fabrics. However, due to a large number of respondents that misclassified their shipments it was necessary to combine the information.

<sup>2</sup>For 1963, detailed figures by type of fabrics for robes other than tufted are shown separately in the report applicable to the industry.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2384.--ROBES AND DRESSING GOWNS				
	Materials, containers, supplies, etc., total.....	(X)	86.9	(X)	80.2
220126	Broadwoven fabrics (piece goods), including linings.....	88.3	52.4	106.6	55.5
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	2.1	2.4	2.7	2.6
970099	All other materials, containers, and supplies.....	(X)	8.6	(X)	7.1
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	(X)	23.5	(X)	15.0

<sup>1</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2384, these small establishments accounted for approximately 1.4 percent of payrolls and 1.9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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# 1967 CENSUS OF MANUFACTURES



MC67(P)-23D-4

## INDUSTRY SERIES

**preliminary  
report**

### Waterproof outer garments

**SIC Code 2385**

The Raincoats and Other Waterproof Outer Garments Industry includes establishments primarily engaged in manufacturing raincoats made from purchased rubberized fabrics and other waterproof outer garments made from such materials as pliofilm and cellophane. Establishments primarily engaged in manufacturing oiled fabric work garments are classified in industry 2328, and those manufacturing vulcanized rubber garments and garments made from rubberized fabrics produced in the same establishment are classified in industry 3069.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Waterproof Outer Garments Industry amounted to \$371.9 million, an increase of 57.9 percent compared with 1963. Value added by manufacture at \$174.4 million in 1967 was 56.6 percent more than value added in 1963. Average employment in the industry showed an increase of 41.6 percent from 1963 to a total of 23.3 thousand employees in 1967.

Of the \$371.9 million total value of shipments and other receipts of establishments classified as producers of waterproof outer garments, \$28.1 million were products primary to other industries; and \$48.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 91 percent of the

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)	
	INDUSTRY 2385. --WATERPROOF OUTER GARMENTS													
1967 Census....	<sup>3</sup> 319	212	23.3	95.3	20.2	36.9	70.9	174.4	197.9	371.9	2.9	47.5	91	93
1966 ASM <sup>1</sup> .....	(NA)	(NA)	18.4	75.4	16.2	30.0	55.4	139.9	171.1	305.7	3.7	42.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	18.6	68.4	16.6	29.7	50.6	134.2	151.7	280.4	3.5	34.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	17.5	70.0	15.4	27.3	50.2	137.1	128.6	253.7	*2.0	24.6	(NA)	(NA)
1963 Census....	341	196	16.4	60.8	14.2	25.0	45.0	111.3	125.7	235.5	2.2	21.0	92	93
1962 ASM <sup>1</sup> .....	(NA)	(NA)	19.7	68.9	16.7	28.9	48.8	109.7	149.2	259.7	*0.8	23.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	17.1	55.9	14.5	25.9	39.6	92.7	122.4	215.1	1.3	20.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	14.4	46.8	12.0	21.0	32.5	83.4	83.4	184.1	0.9	18.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	14.6	47.8	12.1	20.9	34.4	83.2	86.0	170.0	(S)	19.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	277	136	13.2	43.1	11.3	20.2	32.2	73.1	73.9	146.2	1.0	17.5	90	90

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

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**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

The total value of waterproof outer garments shipped by all producers in 1967 was \$317.5 million of which \$294.9 million, or 93 percent, were shipped by plants classified in industry 2385, Waterproof Outer Garments, while the remainder was shipped by plants classified in

other industries. This percent, called the coverage ratio, was 93 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2385, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Report series:

MA-23A, Apparel.

In view of the differences in the originally tabulated totals between the two reports, a review was undertaken of the data reported in each survey. The greatest part of the difference was accounted for by the omission of a number of firms producing men's raincoats from the Apparel Survey. These firms are being added to the annual Apparel Survey. The minor variations in the two sets of data are caused by small reporting differences for a number of plants reporting in both surveys.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms.")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, MMW  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2385. --WATERPROOF OUTER GARMENTS												
United States, total.....	319	212	23.3	95.3	20.2	36.9	70.9	174.4	197.9	371.9	2.9	16.4	111.3
New England.....	39	32	3.1	13.8	2.6	4.7	9.7	21.7	24.4	45.7	0.6	3.5	22.4
Massachusetts.....	34	27	2.8	12.8	2.4	4.3	8.9	20.1	23.1	42.9	0.6	3.0	19.9
Middle Atlantic.....	209	124	8.3	36.2	7.2	12.9	27.2	68.0	91.7	158.8	0.9	7.4	50.6
New York.....	155	94	5.5	26.3	4.7	8.4	18.8	51.4	78.9	129.5	0.5	4.8	40.0
New Jersey.....	36	24	1.3	4.6	1.2	2.1	3.9	7.4	7.2	14.7	0.2	1.4	6.2
Pennsylvania.....	18	15	1.4	5.3	1.3	2.3	4.5	9.2	5.6	14.6	0.2	1.1	4.3
North Central.....	23	18	2.9	10.8	2.7	4.6	9.1	22.2	16.0	38.5	0.1	1.7	12.6
Illinois.....	5	4	0.5	1.6	0.4	0.8	1.3	2.7	1.9	4.6	(Z)	0.3	1.4
Wisconsin.....	■	3	0.1	0.3	0.1	0.1	0.2	0.4	0.3	0.7	(Z)	0.5	3.0
South.....	36	32	8.2	31.3	7.0	13.6	22.9	56.9	60.9	118.5	1.2	3.4	21.5
South Atlantic.....	24	■U	5.3	21.1	4.3	8.2	14.4	42.3	44.2	86.9	0.7	(D)	(D)
West.....	12	6	0.7	3.3	0.6	1.1	2.1	5.6	4.9	10.4	0.1	0.5	4.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozens)	Value (million dollars)	Quantity (1,000 dozens)	Value (million dollars)
2385- --	WATERPROOF OUTER GARMENTS, TOTAL.....	(X)	317.5	(X)	202.8
	Raincoats and raincoats, total.....	2,171	274.3	1,601	156.8
23850 10	Men's and boys':				
	As reported in the census of manufactures.....	853	126.5	623	64.4
	As reported on Census annual Form MA-23A <sup>1</sup> .....	<sup>2</sup> 629	(NA)	675	(NA)
	Men's, excluding uniform, and boys', total.....	589	(NA)	(NA)	(NA)
	Men's, except uniform.....	460	(NA)	675	(NA)
	Boys', including uniform.....	103			
	Not specified by kind.....	26			
	Plastic (with or without fabric lining or trim), total.....	87	(NA)	124	(NA)
23850 03	Men's.....	58	(NA)	124	(NA)
23850 23	Boys'.....	17			
23850 13	Not specified by kind.....	12		(X)	(X)
	Rubberized and/or coated fabrics.....	85	(NA)	(NA)	(NA)
23850 05	Men's.....	75	(NA)	(NA)	(NA)
23850 25	Boys'.....	10			
	Uncoated fabrics (including foam laminates), total.....	368	(NA)	390	(NA)
	With all-weather liners such as pile, wool, etc. (zip-in, button-in, permanent), total.....	263	(NA)	231	(NA)
23850 07	Men's.....	210	(NA)	231	(NA)
23850 27	Boys'.....	46			
23850 17	Not specified by kind.....	7		(X)	(X)
	Unlined or lightweight (rayon, acetate) lined, total.....	105	(NA)	159	(NA)
23850 08	Men's.....	78	(NA)	159	(NA)
23850 28	Boys'.....	20			
23850 18	Not specified by kind.....	7		(X)	(X)
	Fabric, n.s.k.....	49	(NA)	(X)	(X)
23850 98	Men's.....	39			
23850 99	Boys'.....	10			
23850 19	Men's uniform raincoats.....	40	(NA)	(NA)	(NA)
23850 20	Women's, misses', and juniors':				
	As reported in the census of manufactures.....	1,096	139.0	815	82.4
	As reported on Census annual Form MA-23A <sup>1</sup> .....	1,107	(NA)	762	(NA)
23850 31	Plastic (with or without fabric trim).....	62	(NA)	92	(NA)
23850 33	Rubberized and/or coated fabrics.....	174			
23850 35	Uncoated fabrics including foam laminates with all weather liners, such as pile, wool, etc. (zip-in, etc.).....	232			
23850 37	Unlined or lightweight lined (rayon, acetate cotton blends).....	470	(X)	(X)	(X)
23850 39	Fabric, n.s.k.....	169			
23850 30	Girls', teenage girls', and children's:				
	As reported in the census of manufactures.....	<sup>e</sup> 222	8.8	163	10.0
	As reported on Census annual Form MA-23A <sup>1</sup> .....	<sup>r</sup> 236	(NA)	161	(NA)
23850 41	Plastic (with or without fabric lining or trim).....	67	(NA)	61	(NA)
23850 43	Fabric (including rubberized, coated, and uncoated).....	163			
23850 49	Fabric, n.s.k.....	<sup>r</sup> 6		(X)	(X)
23850 71	Baby pants and diaper covers, plastic and rubberized.....	<sup>2</sup> 6,488	20.0	6,644	23.1
23850 98	All other plastic or rubberized waterproof outer garments, including aprons, smocks, bibs, dress shields, bathing caps, etc. (except oil coated and rubber body).....	(X)	10.6	(X)	9.0
23850 00	Raincoats and other waterproof outer garments, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	10.2	(X)	14.0
23850 02	Raincoats and other waterproof outer garments, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	2.4		
23859 93	Receipts for contract work on waterproof outer garments done for others on their materials <sup>3</sup> .....	(X)	37.6	(X)	23.9

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

Footnotes continued on next page.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

Footnotes for Table 3--2385--Continued

- <sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. <sup>r</sup>Revised. (X) Not applicable.  
<sup>1</sup>The detailed quantity data represent cuttings as reported on Census Annual Form MA-23A.  
<sup>2</sup>The greatest part of the difference between the Census data and MA-23A data is accounted for by the omission of a number of companies producing Men's raincoats from the annual Apparel Survey. These firms are being added to the Apparel Survey.  
<sup>3</sup>Contract receipts are not included in the total shown for waterproof outer garments. Contract receipts include all receipts for work on waterproof outer garments done for others on their materials, regardless of the industry classification of the establishment.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2385.--WATERPROOF OUTER GARMENTS				
	Materials, containers, supplies, etc., total.....	(X)	147.7	(X)	89.7
220126	Broadwoven fabrics (piece goods), including linings.....	<sup>e</sup> 93.8	95.5	58.1	58.1
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	0.7	0.7	0.6	0.6
970099	All other materials, containers, and supplies.....	(X)	16.4	(X)	21.3
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	(X)	35.1	(X)	9.8

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (X) Not applicable.<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2385, these small establishments accounted for approximately 0.5 percent of payrolls and 0.6 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

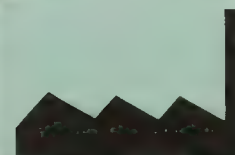
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# 1967 CENSUS OF MANUFACTURES

MC67(P)-23D-5



INDUSTRY SERIES

**preliminary  
report**

## Leather and sheep lined clothing

SIC Code 2386

The Leather and Sheep Lined Clothing Industry includes establishments primarily engaged in manufacturing leather and sheep lined garments. Establishments primarily engaged in manufacturing leather gloves and mittens are classified in industry 3151, and fur garments in industry 2371.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Leather and Sheep Lined Clothing Industry amounted to \$97.0 million, an increase

of 72 percent compared with 1963. Value added by manufacture at \$42.3 million in 1967 was 81 percent more than value added in 1963. Average employment in the industry showed an increase of 50 percent from 1963 to a total of 5.0 thousand employees in 1967.

Of the \$97.0 million total value of shipments and other receipts of establishments classified as leather and sheep lined clothing, \$3.5 million were products primary to other industries; and \$7.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 96 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 97 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2386.-LEATHER AND SHEEP LINED CLOTHING													
1967 Census....	137	69	5.0	23.2	4.5	8.2	18.2	42.3	54.0	97.0	0.5	8.6	96	87
1966 ASM <sup>1</sup> .....	(NA)	(NA)	4.3	20.7	3.8	7.0	16.5	37.9	46.8	84.0	*0.5	9.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	3.8	17.2	3.4	6.6	14.0	32.8	45.7	77.2	*0.4	8.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	3.4	14.4	3.1	5.7	10.9	27.0	33.8	62.4	*1.2	5.9	(NA)	(NA)
1963 Census....	114	50	3.4	12.8	3.0	5.8	10.5	23.4	33.4	56.4	0.3	5.5	97	83
1962 ASM <sup>1</sup> .....	(NA)	(NA)	4.0	12.9	3.4	6.6	9.2	27.9	35.0	64.4	*0.7	5.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	3.8	12.2	3.3	6.3	8.8	24.2	38.5	63.8	*0.8	5.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	3.7	12.0	3.2	6.2	8.4	24.6	35.4	62.1	*0.8	6.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	4.6	16.1	4.1	8.6	12.0	31.3	40.3	75.0	*0.2	6.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	154	71	4.6	16.2	4.0	7.5	12.4	27.8	38.4	65.7	0.3	7.7	94	91

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director

The total value of leather and sheep lined clothing shipped by all producers in 1967 was \$98.7 million of which \$85.9 million, or 87 percent, were shipped by plants classified in industry 2386, Leather and Sheep Lined Clothing, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 83 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2386.—LEATHER AND SHEEP LINED CLOTHING													
United States, total.....	137	89	5.0	23.2	4.5	8.2	18.2	42.3	54.0	97.0	0.5	3.4	23.4
New England.....	8	5	0.5	2.5	0.5	0.9	1.8	5.3	5.1	10.3	(Z)	0.6	3.7
Middle Atlantic.....	54	52	3.2	16.1	2.8	5.3	12.8	29.2	37.3	67.5	0.4	1.9	14.8
New York.....	75	36	2.0	10.3	1.7	3.2	8.1	18.2	29.2	47.3	0.2	1.1	8.9
North Central.....	13	6	0.5	1.6	0.5	0.6	1.3	2.9	5.5	8.4	(D)	0.5	2.6
California.....	9	2	0.1	0.7	0.1	0.2	0.5	1.2	1.1	2.2	(D)	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozen)	Value (million dollars)	Quantity (1,000 dozen)	Value (million dollars)
2386 --	LEATHER AND SHEEP LINED CLOTHING, TOTAL.....	(X)	98.7	(X)	58.4
	Leather coats and jackets:				
23860 15	Men's and boys' <sup>1</sup> .....	94	26.5	119	21.4
23860 53	Women's, misses', and juniors'.....	183	56.5	94	32.1
23860 98	All other leather clothing and sheep lined clothing, including children's.	(X)	1.0	(X)	1.0
23860 00	Leather and sheep lined clothing, n.s.k. (Represents principally establishments with 10 employees or more in 1967. See Note.).....	(X)	13.2	}	3.9
23860 02	Leather and sheep lined clothing, n.s.k. (Represents principally establishments with fewer than 10 employees in 1967. See Note.).....	(X)	1.4		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>For 1963 shipments of men's leather coats and jackets amounted to 97 thousand at a value of \$18.9 million, and boys' leather coats and jackets amounted to 22 thousand at a value of \$2.5 million.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2386.-LEATHER AND SHEEP LINED CLOTHING					
	Materials, containers, supplies, etc., total.....		(X)	48.3	(X)	28.0
220126	Broadwoven fabrics (piece goods), including linings.....	1,000 lin. yds....	4,787	4.7	3,891	3.9
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	...do.....	(NA)	0.7	658	0.6
311100	Finished leather.....	1,000 sq. ft.....	43,105	19.9	46,319	17.5
399961	Dressed furs (include dyed and blended furs).....	.....	(X)	2.2	(NA)	(NA)
970099	All other materials, containers, and supplies.....	.....	(X)	4.0	(X)	3.3
976000	Materials, containers, supplies, n.s.k.....	.....	(X)	16.7	(X)	2.7

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2386, these small establishments accounted for approximately 2 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**WASHINGTON, D.C. 20233**

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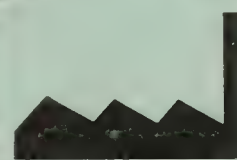
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-23D-6

## INDUSTRY SERIES

**preliminary  
report**

### Apparel belts

SIC Code 2387

The Apparel Belts Industry includes establishments primarily engaged in manufacturing men's and women's apparel belts, regardless of material.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Apparel Belts Industry amounted to \$127.5 million, an increase of 17.4 percent compared with 1963. Value added by manufacture at \$66.5 million in 1967 was 6.9 percent more

than value added in 1963. Average employment in the industry showed a decrease of 14.3 percent from 1963 to a total of 8.4 thousand employees in 1967.

Of the \$127.5 million total value of shipments and other receipts of establishments classified as apparel belts manufacturers, \$11.4 million were products primary to other industries; and \$10.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 91 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2387.--APPAREL BELTS													
1967 Census....	<sup>3</sup> 277	108	8.4	37.7	7.1	12.4	24.3	66.5	60.4	127.5	0.9	15.2	92	97
1966 ASM <sup>1</sup> .....	(NA)	(NA)	9.4	38.0	7.9	15.6	25.2	64.9	59.2	121.4	*1.7	15.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	8.7	34.1	7.2	13.5	22.9	59.6	48.0	106.8	0.8	12.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	9.0	35.0	7.4	13.4	23.1	56.7	44.9	101.6	*0.6	10.6	(NA)	(NA)
1963 Census....	389	141	9.8	35.6	8.3	15.2	24.8	62.2	46.2	108.6	0.7	10.9	91	94
1962 ASM <sup>1</sup> .....	(NA)	(NA)	9.3	32.3	7.5	14.1	22.2	61.0	43.3	102.9	(Z)	11.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	9.6	32.8	7.8	14.4	21.6	59.7	42.5	99.8	(Z)	11.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	12.2	39.4	10.2	18.6	27.2	65.1	50.2	114.0	(S)	11.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	11.7	37.3	9.9	18.1	25.8	65.9	51.5	115.9	(S)	12.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	455	144	10.1	31.8	8.5	15.5	22.5	53.7	46.2	99.1	0.8	12.2	92	95

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. (Z) Less than \$50 thousand.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 5, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments. (See section of text on scope and coverage for further explanation.)

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of apparel belts shipped by all producers in 1967 was \$108.7 million of which \$105.9 million, or 97 percent, were shipped by plants classified in industry 2387, Apparel Belts, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 94 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2387.--APPAREL BELTS												
United States, total.....	277	108	8.4	37.7	7.1	12.4	24.3	66.5	60.4	127.5	0.9	9.8	62.2
New England.....	17	9	0.9	3.7	0.8	1.5	2.8	5.9	6.7	12.6	(Z)	1.0	5.2
Middle Atlantic.....	190	73	4.9	21.9	4.1	7.3	14.9	38.1	35.1	73.9	0.3	6.2	37.5
New York.....	172	63	4.4	20.0	3.6	6.4	13.4	34.2	33.2	68.2	0.2	5.3	33.6
North Central.....	21	5	0.5	2.5	0.5	0.9	1.6	6.3	6.7	12.8	(D)	0.6	5.1
South.....	26	15	1.6	7.3	1.3	2.0	3.4	12.4	8.5	21.1	0.2	1.6	10.2
West.....	23	6	0.5	2.3	0.5	0.8	1.6	2.9	3.3	7.2	(D)	0.6	4.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozen)	Value (million dollars)	Quantity (1,000 dozen)	Value (million dollars)
2387- --	APPAREL BELTS, TOTAL <sup>1</sup> .....	(X)	108.7	(X)	92.4
23871 --	Leather belts (for sale separately), total.....	6,598	65.0	(X)	47.0
23871 13	Women's and children's: Made for sale to apparel firms.....	<sup>e</sup> 2,866	15.9	1,518	8.3
23871 15	Made for sale separately.....	853	10.3	502	6.3
23871 51	Men's and boys'.....	<sup>e</sup> 2,879	38.8	3,006	30.5
23871 00	Leather belts, n.s.k.....	-	-	(X)	2.0
23872 --	Belts, other than leather, total.....	6,576	26.6	(X)	32.5
23872 13	Women's and children's: Made for sale to apparel firms.....	<sup>e</sup> 5,194	17.1	9,387	21.2
23872 15	Made for sale separately.....	706	3.4	1,528	5.6
23872 51	Men's and boys'.....	<sup>e</sup> 627	5.9	362	4.3
23872 00	Belts, other than leather, n.s.k.....	<sup>2</sup> 49	0.2	(X)	1.4
23870 00	Apparel belts, n.s.k. (Represents companies with 10 or more employees. See Note.).....	(X)	12.7	(X)	12.8
23870 02	Apparel belts, n.s.k. (Represents companies with less than 10 employees. See Note.).....	(X)	4.4		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

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- Represents zero. <sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Does not include belts made and sold as parts of garments.

<sup>2</sup>Quantity for this item was estimated, based on the unit price relationship for all other items in this product class.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2387.--APPAREL BELTS					
	Materials, containers, supplies, etc., total.....		(X)	53.5	(X)	39.3
220126	Broadwoven fabrics (piece goods), including linings.....	million lin. yds.	3.5	2.3	3.8	2.1
311100	Finished leather.....	million sq. ft...	33.8	18.4	26.1	12.8
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	million lin. yds.	(X)	16.5	0.6	0.4
970099	All other materials, containers, and supplies, consumed.....				(X)	11.4
976000	Materials, containers, supplies, etc., n.s.k. <sup>1</sup> .....		(X)	16.3	(X)	12.6

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

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This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

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In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2387, these small establishments accounted for approximately 3.4 percent of payrolls and 3.9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

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The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

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**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

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In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

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# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-23D-7

## INDUSTRY SERIES

**preliminary  
report**

### Apparel and accessories, n.e.c.

SIC Code 2389

The Apparel and Accessories, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing suspenders, garters, handkerchiefs, and other apparel, not elsewhere classified, such as academic caps and gowns, vestments, and theatrical costumes.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Apparel and Accessories, N.E.C., Industry amounted to \$119.5 million, an increase of 21.7 percent compared with 1963. Value

added by manufacture at \$55.8 million in 1967 was 29.2 percent more than value added in 1963. Average employment in the industry showed an increase of 16.7 percent from 1963 to a total of 8.4 thousand employees in 1967.

Of the \$119.5 million total value of shipments and other receipts of establishments classified as apparel and accessories, n.e.c., \$4.1 million were products primary to other industries; and \$10.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 96 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2389.--APPAREL AND ACCESSORIES, N.E.C.													
1967 Census....	249	102	8.4	35.1	7.1	12.4	24.5	55.8	63.3	119.5	2.3	21.8	96	85
1966 ASM <sup>1</sup> .....	(NA)	(NA)	8.7	34.2	7.4	13.6	25.0	55.0	60.7	116.6	1.3	20.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	8.7	33.9	7.5	13.4	24.7	53.3	61.5	115.4	*1.3	20.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	7.4	26.6	6.3	10.7	19.5	49.2	55.2	102.2	*1.4	17.2	(NA)	(NA)
1963 Census....	270	108	7.2	25.6	6.2	11.0	19.2	43.2	52.7	98.2	0.5	18.2	93	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*7.7	*25.5	*7.2	*12.8	*19.9	*39.3	*48.6	*88.5	(Z)	*18.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*6.9	*23.1	*6.4	*11.7	*18.0	*39.1	*44.5	*84.7	(Z)	*17.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1958 Census <sup>2</sup> ...	309	93	7.5	23.1	6.1	11.0	16.2	41.3	53.2	94.9	0.5	18.1	91	84

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. (Z) Less than \$50 thousand.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 5, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of apparel and accessories, n.e.c., shipped by all producers in 1967 was \$123.6 million of which \$104.8 million, or 85 percent, were shipped by plants classified in industry 2389, Apparel and Accessories, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2389, the Census Bureau collects current statistics on garter belts. These data appear in the Current Industrial Reports series:

MA-23J, Brassiers, Corsets, and Allied Garments and are shown in table 3 of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2389.--APPAREL AND ACCESSORIES, N.E.C.												
United States, total.....	249	102	8.4	35.1	7.1	12.4	24.4	55.8	63.3	119.5	2.3	7.2	43.2
New England.....	20	10	1.0	3.6	0.9	1.4	2.7	5.4	7.4	12.8	0.1	0.8	4.6
Massachusetts.....	10	4	0.3	1.2	0.2	0.4	0.9	1.6	0.9	2.6	(Z)	(D)	(D)
Middle Atlantic.....	151	60	4.1	17.0	3.4	6.0	11.7	30.8	44.0	75.5	0.5	4.4	29.6
New York.....	103	37	2.4	11.0	1.9	3.4	7.1	21.2	31.3	53.9	0.4	2.6	21.7
New Jersey.....	21	9	0.5	1.6	0.5	0.7	1.3	2.2	1.6	3.9	(Z)	0.8	2.9
Pennsylvania.....	27	14	1.2	4.4	1.0	1.8	3.3	7.3	10.5	17.7	0.1	1.0	5.1
East North Central....	26	12	1.8	8.1	1.3	2.5	4.9	10.2	5.7	15.6	(D)	0.9	3.8
Illinois.....	11	7	1.2	5.6	0.9	1.6	3.3	5.8	3.5	9.0	(D)	0.3	1.5
West North Central....	7	5	0.3	1.2	0.3	0.5	1.0	1.7	0.6	2.3	(D)	0.2	0.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified. (Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 dozen)	Value (million dollars)	Quantity (1,000 dozen)	Value (million dollars)
2389- --	APPAREL AND ACCESSORIES, N.E.C., TOTAL <sup>1</sup> .....	(X)	123.6	(X)	103.1
23890 31	Garters, hose supporters, armbands, and suspenders.....	6,242	10.9	15,502	15.7
	Handkerchiefs:				
	Cotton handkerchiefs, except embroidered.....	18,070	28.9	19,473	26.6
23890 51	Men's and boys'.....	15,615	22.1	15,997	19.7
23890 55	Women's and children's.....	2,455	6.8	3,476	6.9
23890 59	All other handkerchiefs, including embroidered of all fabrics.....	3,337	8.2	3,428	8.3
23890 71	Garter belts:				
	As reported in the census of manufactures.....	1,050	12.9	770	8.6
	As reported on Census annual Form MA-23J.....	<sup>2</sup> 1,080	(NA)	752	(NA)
23890 91	Academic caps and gowns, and costumes, including theatrical.....	(X)	27.8	(X)	15.6
23890 98	All other apparel, n.e.c., including ecclesiastical vestments, special garments for fraternal orders, etc., except tailored clothing and uniforms.....	(X)	14.3	(X)	12.0
23890 00	Apparel, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	17.6	(X)	16.3
23890 02	Apparel, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	3.0		
23899 93	Receipts for contract work on apparel, n.e.c., done for others on their materials.....	(X)	1.9	(X)	3.2

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Does not include apparel for which data are being published in separate reports such as dresses, suits, coats, shirts, underwear, nightwear, etc.

<sup>2</sup>Includes an undetermined quantity of garter belts made in Puerto Rican plants owned by domestic producers.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million lin. yds.)	Delivered cost (million dollars)	Quantity (million lin. yds.)	Delivered cost (million dollars)
	INDUSTRY 2389.--APPAREL AND ACCESSORIES, N.E.C.				
	Materials, containers, supplies, etc., total.....	(X)	52.2	(X)	43.8
220126	Broadwoven fabrics (piece goods), including linings.....	69.6	25.8	64.1	21.0
225601	Knitted fabrics (cotton, wool, manmade fibers, etc.).....	(NA)	0.5	1.1	0.6
970099	All other materials, containers, and supplies.....	(X)	12.7	(X)	9.8
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	(X)	13.2	(X)	12.3

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2389, these small establishments accounted for approximately 2.3 percent of payrolls and 2.7 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

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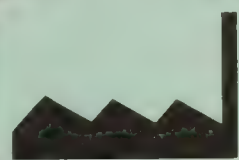
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-23E-1

## INDUSTRY SERIES

### Curtains and draperies

SIC Code 2391

**preliminary  
report**

The Curtains and Draperies Industry includes establishments primarily engaged in manufacturing curtains and draperies from purchased materials.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Curtains and Draperies Industry amounted to \$421.0 million, an increase of 34 percent compared with 1963. Value added by manufacture at \$180.5 million in 1967 was 37

percent more than value added in 1963. Average employment in the industry showed an increase of 17 percent from 1963 to a total of 25.8 thousand employees in 1967.

Of the \$421.0 million total value of shipments and other receipts of establishments classified as curtains and draperies, \$12.1 million were products primary to other industries; and \$49.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2391.—CURTAINS AND DRAPERIES													
1967 Census....	1,433	275	25.8	101.0	22.8	43.3	78.7	180.5	241.5	421.0	4.3	44.4	97	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	26.6	95.6	23.8	42.4	74.5	188.7	241.9	416.2	3.8	33.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	24.4	87.9	21.2	40.7	66.6	145.1	203.7	349.5	3.7	32.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	23.0	80.8	19.8	37.5	59.5	150.3	190.7	338.7	*3.0	32.0	(NA)	(NA)
1963 Census....	1,121	255	22.0	75.1	19.0	35.8	56.4	132.0	182.4	313.0	2.9	34.7	96	95
1962 ASM <sup>1</sup> .....	(NA)	(NA)	19.8	62.5	17.1	32.5	44.8	105.9	166.0	274.4	*3.0	30.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	19.7	61.7	17.1	32.5	44.2	116.7	166.0	281.8	(S)	31.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	17.9	54.8	15.6	29.4	40.0	100.3	148.7	250.1	(S)	28.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	17.6	51.8	15.2	28.7	37.1	99.5	154.8	255.6	(S)	27.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	783	206	16.4	48.4	14.1	26.8	36.9	87.3	130.9	217.0	1.9	27.2	96	92

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

The total value of curtains and draperies shipped by all producers in 1967 was \$377.0 million of which \$359.7 million, or 95 percent, were shipped by plants classified in industry 2391, Curtains and Draperies, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 95 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2391.—CURTAINS AND DRAPERIES													
United States, total.....	1,433	275	25.8	101.0	22.8	43.3	78.7	180.5	241.5	421.0	4.3	22.0	132.0
New England.....	96	49	5.0	17.8	4.4	8.1	13.7	27.3	48.0	75.3	0.4	4.9	23.1
Massachusetts.....	71	42	4.1	14.9	3.6	6.6	11.2	21.9	38.8	61.0	0.3	4.0	18.9
Middle Atlantic.....	359	82	6.4	29.1	5.7	11.6	23.3	63.9	95.3	159.7	1.1	6.2	46.6
New York.....	251	55	4.2	20.4	3.7	7.8	16.2	48.6	80.8	130.1	1.0	3.9	32.9
New Jersey.....	40	11	0.8	2.9	0.7	1.3	2.6	4.7	3.0	7.7	(2)	0.9	5.7
Pennsylvania.....	68	16	1.5	5.8	1.3	2.4	4.5	10.5	11.5	22.0	0.1	1.4	8.1
East North Central...	209	31	2.2	9.1	2.0	3.6	6.6	15.7	12.6	28.2	0.3	1.7	10.4
Ohio.....	34	5	0.4	1.7	0.4	0.6	1.2	3.2	3.8	7.0	0.1	0.4	2.8
Indiana.....	19	5	0.5	2.1	0.4	0.7	1.3	3.4	3.1	6.5	0.1	0.2	0.9
Illinois.....	94	13	0.9	3.7	0.8	1.5	2.9	6.3	4.0	10.2	0.1	0.8	4.6
Michigan.....	46	5	0.3	1.2	0.3	0.5	0.9	2.1	1.3	3.4	(D)	0.2	1.5
Wisconsin.....	16	3	0.1	0.5	0.1	0.2	0.4	0.7	0.4	1.1	(D)	(D)	(D)
West North Central...	65	7	0.6	2.2	0.5	1.0	1.7	3.4	3.8	7.2	(2)	0.4	2.4
Missouri.....	20	2	0.3	1.2	0.3	0.5	0.9	1.7	2.1	3.8	(2)	0.3	1.5
South.....	282	52	7.2	26.2	6.3	12.1	20.6	44.1	60.8	103.4	2.2	4.4	23.7
South Atlantic.....	170	41	5.7	20.8	5.0	9.6	16.2	34.0	50.7	82.9	2.0	3.2	18.0
Maryland.....	16	1	0.1	0.3	0.1	0.1	0.2	0.8	0.4	1.2	(D)	(D)	(D)
District of Columbia.....	11	1	0.1	0.3	0.1	0.1	0.2	0.4	0.2	0.7	(D)	(D)	(D)
South Carolina...	8	5	0.6	2.3	0.5	1.1	1.9	4.0	5.5	9.3	0.1	0.1	0.5
Georgia.....	29	12	1.4	4.6	1.2	2.3	3.7	5.8	3.2	9.0	0.1	0.7	2.8
Florida.....	69	8	0.6	2.1	0.5	0.9	1.4	3.4	2.7	6.0	(2)	0.3	1.3
Texas.....	67	8	0.8	3.1	0.7	1.4	2.5	7.0	5.6	12.6	0.1	(D)	(D)
Mountain.....	54	6	0.4	1.5	0.3	0.6	1.2	2.4	1.7	4.2	(2)	0.3	1.7
Colorado.....	18	2	0.1	0.3	0.1	0.1	0.2	0.5	0.3	0.8	(2)	(D)	(D)
Arizona.....	20	1	0.2	0.9	0.2	0.3	0.8	1.3	0.6	1.9	(D)	0.2	0.9
Utah.....	8	2	0.1	0.3	0.1	0.1	0.2	0.6	0.8	1.3	(2)	(D)	(D)
Pacific.....	368	48	3.9	15.0	3.5	6.3	11.5	23.8	19.3	43.0	0.3	4.0	24.2
Washington.....	31	6	0.3	1.0	0.2	0.4	0.7	1.6	0.8	2.4	(D)	0.2	1.1
California.....	309	40	3.4	12.9	3.0	5.5	10.0	20.5	16.6	37.1	0.2	3.6	22.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
2391- --	CURTAINS AND DRAPERIES, TOTAL.....	.....	(NA)	(X)	377.0	(X)	(X)	278.3
23910 11	Window curtains, excluding lace curtains: Wholly or chiefly cotton.....	Million pairs or sets.....	(NA)	20.9	42.7	26.1	26.0	32.3
23910 15	Wholly or chiefly manmade fiber fabrics: Glass fiber fabrics.....	...do.....	(NA)	5.0	11.9	5.9	5.7	10.3
23910 17	Other manmade fiber fabrics (rayon, acetate, nylon, etc.).....	...do.....	(NA)	16.4	37.2	23.2	20.9	36.8
23910 18	Other materials, including plastic.....	...do.....	(NA)	8.6	10.8	7.9	7.8	7.5
23910 51	Draperies: Wholly or chiefly cotton.....	...do.....	(NA)	11.3	47.0	8.2	7.7	23.2
23910 55	Wholly or chiefly manmade fiber fabrics: Glass fiber fabrics.....	...do.....	(NA)	10.9	37.1	15.0	13.1	43.2
23910 57	Other manmade fiber fabrics (rayon, acetate, nylon, etc.).....	...do.....	(NA)	15.1	72.2	13.0	14.1	50.3
23910 58	Other materials, including plastic.....	...do.....	(NA)	(NA)	6.3	11.5	11.4	12.0
23910 00	Curtains and draperies, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(NA)	(X)	86.3	(X)	(X)	62.8
23910 02	Curtains and draperies, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(NA)	(X)	25.4			
93000 00	Commission receipts for contract work reported by establishments classified in the curtains and draperies industry.....	.....	(NA)	(X)	36.6	(X)	(X)	29.1

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2391.—CURTAINS AND DRAPERIES					
	Materials, containers, supplies, etc., total.....	.....	(X)	220.0	(X)	161.7
	Broadwoven fabrics:					
221101	Cotton.....	Million lin. yds.	86.8	39.9	75.4	26.0
222101	Rayon and acetate.....	...do.....	76.5	40.5	102.8	44.4
222105	Nylon.....	...do.....	11.8	6.9	7.0	1.7
220127	Other broadwoven fabrics.....	...do.....	78.3	33.1	99.8	37.4
307911	Unsupported plastic film and sheeting (excluding packaging material).....	Million sq. yds..	(NA)	1.8	25.3	2.6
970099	All other materials, components, parts, containers, and supplies consumed.....	.....	(X)	30.9	(X)	11.8
976000	Materials, containers, supplies, n.s.k.....	.....	(X)	66.9	(X)	37.8

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2391, these small establishments accounted for approximately 7 percent of payrolls and 8 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Housefurnishings, n.e.c.

SIC Code 2392

The Housefurnishings, Except Curtains and Drapes, Industry includes establishments primarily engaged in manufacturing housefurnishings from purchased materials. Establishments primarily engaged in manufacturing curtains and draperies are classified in industry 2391.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Housefurnishings, N.E.C., Industry amounted to \$938.6 million, an increase of 31 percent compared with 1963. Value added by manufacture at \$343.3 million in 1967 was 20 per-

cent more than value added in 1963. Average employment in the industry showed an increase of 32 percent from 1963 to a total of 45.2 thousand employees in 1967.

Of the \$938.6 million total value of shipments and other receipts of establishments classified as housefurnishings, n.e.c., \$110.3 million were products primary to other industries; and \$55.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 88 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

The total value of housefurnishings, n.e.c., shipped by all producers in 1967 was \$1,528.4

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2392.--HOUSEFURNISHINGS, N.E.C.													
1967 Census....	1,219	414	45.2	190.7	38.4	74.7	141.1	343.3	594.2	938.6	11.7	128.2	88	51
1966 ASM <sup>1</sup> .....	(NA)	(NA)	44.7	181.5	37.9	73.4	129.5	336.7	576.5	903.8	15.4	137.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	41.9	163.1	35.3	69.0	118.5	302.3	511.0	811.2	14.9	110.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	40.3	153.3	34.3	68.0	110.6	303.9	448.6	745.2	*9.3	101.9	(NA)	(NA)
1963 Census....	1,239	422	39.7	142.8	33.6	63.9	102.7	285.8	433.1	716.6	8.4	98.2	88	50
1962 ASM <sup>1</sup> .....	(NA)	(NA)	39.4	136.2	34.0	65.9	96.2	262.7	487.7	739.8	*6.6	104.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	39.3	130.0	34.0	66.0	92.3	247.5	468.4	709.3	(S)	97.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	38.2	125.6	32.8	64.6	88.9	242.3	444.3	677.5	(S)	98.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	37.0	118.0	31.8	63.0	85.9	231.6	431.7	656.6	5.3	90.6	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,205	393	36.8	113.4	31.6	59.3	83.3	218.3	399.5	616.2	6.1	83.9	88	58

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. n.e.c. Not elsewhere classified.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

million of which \$772.6 million, or 51 percent, were shipped by plants classified in industry 2392, Housefurnishings, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 50 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2392, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Report series:

MA-23X, Sheets, Pillowcases, and Towels.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2392.--HOUSEFURNISHINGS, N.E.C.												
United States, total.....	1,219	414	45.2	190.7	38.4	74.7	141.1	343.3	594.2	938.6	11.7	39.7	285.8
New England.....	73	33	2.9	12.4	2.4	4.5	8.4	23.1	41.7	66.8	0.6	2.3	15.3
Massachusetts.....	45	21	2.0	8.8	1.6	3.1	5.5	17.8	23.6	43.5	(D)	1.4	9.2
Middle Atlantic.....	531	172	13.8	59.3	11.9	22.7	44.1	122.8	171.1	292.7	3.4	15.3	119.3
New York.....	386	114	8.2	36.6	7.1	13.6	27.1	77.7	117.4	195.0	2.6	9.0	76.5
New Jersey.....	81	31	2.9	12.1	2.5	4.7	9.2	25.3	29.8	54.3	0.4	3.2	23.6
Pennsylvania.....	64	27	2.7	10.5	2.3	4.5	7.7	19.7	23.9	43.4	0.4	3.1	19.2
East North Central....	164	54	4.2	18.9	3.5	6.7	12.9	34.8	48.5	83.1	1.0	4.3	32.9
Ohio.....	32	10	0.5	2.1	0.4	0.8	1.4	5.0	5.5	10.4	(D)	0.6	5.3
Indiana.....	20	6	0.6	2.7	0.5	0.9	1.8	4.7	4.4	9.2	0.1	0.5	3.1
Illinois.....	81	32	2.6	11.8	2.2	4.2	8.0	20.7	31.5	52.1	0.3	2.8	20.2
Michigan.....	22	4	0.4	1.5	0.3	0.6	1.2	2.7	5.7	8.4	(Z)	0.3	2.5
Wisconsin.....	11	2	0.2	0.9	0.2	0.3	0.5	1.6	1.3	3.0	(D)	0.2	1.7
West North Central....	49	19	1.5	5.2	1.2	2.1	3.7	8.1	11.7	19.7	0.3	1.2	7.3
Minnesota.....	10	5	0.4	1.4	0.3	0.5	0.8	1.6	1.6	3.3	(Z)	0.3	1.3
Missouri.....	25	10	0.5	1.8	0.4	0.7	1.3	3.3	7.0	10.3	0.2	0.4	3.4
South Atlantic.....	172	71	15.6	65.1	13.1	26.7	49.8	97.3	219.0	317.8	5.1	10.8	74.2
North Carolina.....	38	17	5.1	19.9	4.5	9.0	16.2	31.5	104.7	135.3	1.4	3.0	20.4
Georgia.....	64	34	4.0	15.0	3.3	6.4	11.7	27.4	45.8	75.4	(D)	4.9	34.9
Florida.....	28	5	0.5	1.8	0.5	0.8	1.4	3.0	3.5	6.5	(Z)	0.3	1.9
East South Central....	48	16	2.9	11.4	2.5	4.9	9.2	19.4	56.7	75.6	0.5	2.4	13.3
Mississippi.....	7	3	0.4	1.6	0.3	0.6	1.4	3.2	6.7	9.8	0.1	(D)	(D)
West South Central....	50	11	1.2	4.3	1.0	1.9	3.1	8.9	10.5	19.1	0.3	0.7	3.5
Texas.....	33	7	0.9	3.1	0.8	1.5	2.2	6.6	7.0	13.5	0.2	0.5	2.6
West.....	132	38	3.2	14.2	2.7	5.2	9.9	28.9	34.9	63.6	0.5	2.6	21.0
Pacific.....	127	38	3.2	14.1	2.7	5.2	9.9	28.8	34.8	63.4	0.5	2.6	20.8
Oregon.....	11	2	0.2	1.0	0.2	0.3	0.7	2.2	2.8	5.1	(D)	0.2	1.5
California.....	109	32	2.8	12.4	2.4	4.6	8.6	24.7	30.1	54.7	0.4	2.4	18.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified. (Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967		Total production (quantity)	1963	
			Total shipments, including interplant transfers			Total shipments, including interplant transfers	
			Quantity	Value (million dollars)		Quantity	Value (million dollars)
2211- pt. 2392- --	HOUSEFURNISHINGS, EXCEPT CURTAINS AND DRAPERIES, TOTAL....	.....	(X)	1,528.4	(X)	(X)	1,155.3
22110 pt. 23926 --		Bedspreads and bedsets, total.....	Million units.	(X)	207.2	(X)	32.2
	Made in cotton weaving mills.....	...do.....	(X)	207.2	{ 8.5 (X)	8.3	39.0
	Made in other industries.....	...do.....				23.9	111.9
	Tufted:						
23926 10	Wholly or chiefly cotton tufting yarns.....	...do.....	<sup>e</sup> 12.8	68.9	(X)	13.0	47.1
23926 20	Other tufting yarns.....	...do.....	0.8	4.7	(X)	1.3	4.0
	Jacquard woven:						
	Wholly or chiefly cotton:						
22110 41	Made in cotton weaving mills.....	...do.....	4.9	28.1	5.4	5.3	28.5
23926 51	Made in other industries.....	...do.....	5.6	21.6	2.4	2.3	14.7
23926 59	Other.....	...do.....	<sup>e</sup> 0.6	4.4	(Z)	(Z)	1.2
	Other than jacquard woven:						
	Wholly or chiefly cotton:						
22110 45	Made in cotton weaving mills.....	...do.....	8.7	41.4	{ 3.1 4.0	3.0	10.5
23926 71	Made in other industries.....	...do.....				4.0	21.3
23926 79	Other.....	...do.....	<sup>e</sup> 2.2	19.0	2.9	3.0	21.3
23926 00	Bedspreads and bedsets, n.s.k.....	...do.....	(X)	19.1	(X)	21.8	2.2
	Sheets and pillowcases made from woven fabrics:						
	Total as reported in the census of manufactures.....	.....	(X)	438.5	(X)	(X)	328.8
22118 00	Made in weaving mills.....	.....	(X)	268.4	{ (X)	(X)	328.8
23928 00	Made from purchased fabric.....	.....	(X)	170.1			
	Total as reported on Census annual Form MA-23X.....	.....	(X)	444.6	(X)	(X)	329.1
	Sheets:						
	Crib size, total.....	Million dozen.	0.8	6.5	0.7	0.7	5.0
22118 03	Carded.....	...do.....	0.8	6.5	0.7	0.7	5.0
23928 03	Combed.....	...do.....					
22118 13	Other sheets, total.....	...do.....	14.8	359.6	12.2	12.3	268.2
	Flat.....	...do.....	9.6	229.9	7.9	8.1	175.1
22118 05	Carded.....	...do.....	5.1	106.3	{ 7.9	8.1	175.1
23928 05	Combed.....	...do.....	4.5	123.6			
22118 15	Fitted.....	...do.....	5.2	129.8	4.3	4.2	93.1
23928 15	Carded.....	...do.....	2.2	46.7	{ 4.3	4.2	93.1
22118 07	Combed.....	...do.....	3.0	83.1			
23928 17	Pillowcases.....	...do.....	13.0	78.5	10.4	10.8	55.9
22118 33	Carded.....	...do.....	7.0	34.7	{ 10.4	10.8	55.9
23928 33	Combed.....	...do.....	6.0	43.8			
22118 35	Towels and washcloths made from woven fabric:						
	Total as reported in the census of manufactures.....	.....	(X)	300.2	(X)	(X)	226.4
22119 00	Made in weaving mills.....	.....	(X)	270.1	{ (X)	(X)	226.4
23929 00	Made from purchased fabric.....	.....	(X)	30.1			
	Total as reported on Census annual Form MA-23X.....	.....	(X)	303.6	(X)	(X)	225.3
22119 11	Terry woven towels.....	Million dozen.	48.6	226.7	38.0	37.4	157.5
23929 11	Huck and crash towels, total.....	.....	(X)	31.4	(X)	(X)	33.7
	Made for retail sales.....	Million dozen.	5.5	10.4	5.9	6.0	10.6
22119 23	Dish towels.....	...do.....	4.9	9.3	{ 5.9	6.0	10.6
23929 23	Other towels.....	...do.....	0.6	1.1			
22119 25	Made for industrial and institutional use.....	Million lin. yds.....	139.4	21.1	155.0	157.1	23.1
23929 27	Dish towels.....	...do.....	61.4	9.1	{ 155.0	157.1	23.1
22119 29	Other towels.....	...do.....	78.0	12.0			
23929 29	Washcloths.....	Million dozen.	33.7	45.5	28.3	28.1	34.1
22119 53							
23929 53							

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967		Total production (quantity)	1963	
			Total shipments, including interplant transfers			Total shipments, including interplant transfers	
			Quantity	Value (million dollars)		Quantity	Value (million dollars)
2211- pt. 2392- --	HOUSEFURNISHINGS, EXCEPT CURTAINS AND DRAPERIES--Con.						
23920 --		Other housefurnishings, total.....	(X)	582.5	(X)	(X)	449.1
23920 19	Shower bath curtains, including plastic (unsupported film), coated fabrics and all other.....	Million units.	13.6	26.1	8.8	8.7	18.5
23920 23	Comforters and wadded quilts.....	do.....	<sup>e</sup> 3.6	17.4	5.2	5.2	25.3
23920 31	Quilted products (except comforters and wadded quilts): Mattress protectors.....	do.....	<sup>e</sup> 26.2	54.3	12.3	12.2	24.0
23920 38	Other, including baby pads.....	do.....	(X)	14.0	(X)	(X)	19.9
23920 42	Tablecloths: Plastic or plastic coated or laminated.....	Million dozen.	(NA)	15.9	1.5	1.5	23.8
23920 44	All other tablecloths.....	do.....	(NA)	17.1			
23920 45	Napkins.....	do.....	<sup>e</sup> 0.9	3.2	1.3	1.3	4.2
23920 47	Place mats and place-mat sets, including plastic.....	do.....	(X)	4.6	(X)	(X)	6.9
23920 49	Other related articles, except lace (dresser covers and scarves, table sets--luncheon, bridge, and similar--doilies, tray cloths, etc.) including plastic.....	do.....	(X)	4.1	(X)	(X)	5.9
23920 52	Pillows: Bed pillows: Foam rubber.....	Million units.	<sup>e</sup> 9.4	23.6	8.1	8.1	14.5
23920 53	Other materials.....	do.....	<sup>e</sup> 10.8	20.2	12.6	12.6	32.6
23920 57	Fancy pillows and cushions: Foam rubber.....	do.....	<sup>e</sup> 11.9	23.2	16.1	16.1	27.2
23920 59	Other materials.....	do.....	<sup>e</sup> 9.3	17.0			
23920 62	Slip covers: Furniture: Made from unsupported film (plastic).....	do.....	(NA)	4.6	1.3	1.3	3.4
23920 64	Made from other material (cotton, rayon, etc.).....	do.....	6.9	40.6	5.4	5.1	36.1
23920 65	Mattress.....	do.....	(NA)	8.2	2.1	2.2	4.7
23920 69	Other.....	do.....	(X)	14.2	(X)	(X)	7.5
23920 71	Mops and dusters: Dry mops and dusters.....	Million units.	<sup>e</sup> 20.4	20.2	13.0	12.9	14.3
23920 73	Wet mops.....	do.....	<sup>e</sup> 43.4	23.5	(X)	30.5	17.9
23920 75	Sponge mops.....	do.....	<sup>e</sup> 11.8	13.8	9.5	9.6	9.0
23920 81	Bags- laundry, wardrobe, and shoe bags.....	do.....	(X)	37.7	(NA)	(NA)	28.2
23920 98	All other housefurnishings, except embroidered.....	do.....	(X)	51.1	(X)	(X)	56.0
23920 00	Housefurnishings, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.).....	do.....	(X)	103.8	(X)	(X)	68.9
23920 02	Housefurnishings, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	do.....	(X)	24.1			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k. (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified in the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable. (Z) Less than 0.1 when rounded.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2392.--HOUSEFURNISHINGS, N.E.C.					
	Materials, containers, supplies, etc., total.....		(X)	544.2	(X)	395.2
	Broadwoven fabrics:					
221101	Cotton.....	Million lin. yds.	<sup>e</sup> 482.8	216.6	420.3	137.5
222101	Rayon and acetate.....	..do.....	<sup>e</sup> 70.6	32.2	70.1	30.2
222105	Nylon.....	..do.....	(NA)	11.6	10.1	3.8
220127	Other broadwoven fabrics.....	..do.....	<sup>e</sup> 23.9	20.5	44.6	15.6
229503	Plastic coated, impregnated, or laminated fabrics.....	..do.....	<sup>e</sup> 42.2	16.7	40.2	8.1
307911	Unsupported plastic film and sheeting (excluding packaging material).....	Million sq. yds..	<sup>e</sup> 115.7	15.5	107.2	14.9
282014	Manmade fibers (staple and tow).....	Million lbs.....	<sup>e</sup> 27.0	15.0	18.0	9.4
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	116.6	(X)	101.5
972000	Materials, containers, supplies, n.s.k.....		(X)	99.5	(X)	74.1

<sup>e</sup>From 10 to 30 percent of this figure was estimated.

(NA) Not available.

n.s.k. Not specified by kind.

(X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2392, these small establishments accounted for approximately 2 percent of payrolls and 3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

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This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

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OFFICIAL BUSINESS

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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Textile bags

SIC Code 2393

The Textile Bags Industry includes establishments primarily engaged in manufacturing shipping and other industrial bags from purchased fabric. Establishments primarily engaged in manufacturing plastic bags are classified in industry 2643; Laundry, wardrobe, shoe and other textile housefurnishing bags in industry 2392; and Luggage in industry 3161.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Textile Bags Industry amounted to \$290.9 million, an increase of 45 percent compared

with 1963. Value added by manufacture at \$88.5 million in 1967 was 57 percent more than value added in 1963. Average employment in the industry showed an increase of 26 percent from 1963 to a total of 9.1 thousand employees in 1967.

Of the \$290.9 million total value of shipments and other receipts of establishments classified as Textile Bags, \$16.8 million were products primary to other industries; and \$25.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)							
	INDUSTRY 2393.--TEXTILE BAGS													
1967 Census....	197	97	9.1	38.0	8.1	15.5	28.7	88.5	204.4	290.9	1.9	32.8	94	90
1966 ASM <sup>1</sup> .....	(NA)	(NA)	6.9	27.9	5.9	12.2	23.3	60.2	147.0	205.0	*4.1	26.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	7.0	28.7	6.0	12.1	23.4	57.8	145.8	204.7	*1.5	26.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	7.0	27.0	5.9	11.8	19.7	56.0	130.6	183.4	*1.2	31.0	(NA)	(NA)
1963 Census....	192	88	7.2	28.3	6.1	11.9	20.7	56.5	144.6	200.4	1.9	28.3	88	85
1962 ASM <sup>1</sup> .....	(NA)	(NA)	9.1	34.8	7.9	14.8	24.5	70.3	161.7	229.2	*1.6	31.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	8.9	32.3	7.7	14.6	22.6	59.9	161.1	221.0	1.9	26.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	8.5	32.6	7.4	14.5	22.6	63.4	147.8	211.4	2.9	30.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	8.4	30.6	7.2	13.9	21.1	58.9	144.7	205.5	(S)	27.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	237	101	9.1	30.0	7.6	14.7	21.9	51.6	153.8	204.4	1.5	27.7	83	85

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 5, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of Textile Bags shipped by all producers in 1967 was \$276.2 million of which \$248.9 million, or 90 percent, were shipped by plants classified in industry 2393, Textile Bags, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 85 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2393.--TEXTILE BAGS												
United States, total.....	197	97	9.1	38.0	8.1	15.5	28.7	88.5	204.4	290.9	1.9	7.2	56.5
Northeast.....	59	25	1.7	7.3	1.5	2.9	5.4	17.3	37.3	54.0	0.3		
New York.....	31	5	0.7	3.1	0.6	1.2	2.3	6.2	12.5	18.4	0.1	0.8	5.1
Pennsylvania.....	10	6	0.5	2.0	0.5	0.9	1.5	6.9	16.5	23.3	(D)	0.3	2.7
East North Central....	32	7	0.4	1.9	0.4	0.7	1.4	3.1	8.0	11.0	(Z)	0.6	4.3
Illinois.....	12	-	0.1	0.3	0.1	0.1	0.2	0.6	0.9	1.5	(D)	0.1	1.1
Michigan.....	7	3	0.1	0.6	0.1	0.2	0.5	1.1	1.4	2.4	(Z)	(D)	(D)
West North Central....	19	13	1.7	6.6	1.5	2.8	4.9	10.1	23.7	33.6	0.2	0.7	6.0
Missouri.....	9	7	0.9	4.4	0.8	1.6	3.2	7.1	18.5	25.4	0.2	0.4	3.7
South Atlantic.....	33	18	2.0	8.1	1.9	3.5	6.3	25.3	56.8	80.9	0.5	1.0	7.8
North Carolina.....	5	6	1.0	3.9	0.9	1.8	3.1	10.7	28.9	38.8	0.2	0.4	2.4
East South Central....	11	5	0.8	3.2	0.7	1.3	2.6	8.8	14.9	23.6	0.1	0.5	3.3
West South Central....	23	18	1.6	6.0	1.4	2.7	4.6	14.3	43.1	57.2	0.3	1.5	12.9
Louisiana.....	5	9	1.0	3.6	0.9	1.7	2.9	8.0	31.7	39.6	0.2	(D)	(D)
West.....	20	11	1.0	4.9	0.9	1.6	3.6	9.6	20.8	30.5	0.5	1.2	11.3
California.....	9	6	0.6	2.9	0.5	1.0	2.0	5.1	11.7	16.9	(D)	0.7	6.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
2393- --	TEXTILE BAGS, TOTAL.....		(X)	276.2	(X)	181.9
23930 12	Cotton, including cotton canvas (except open mesh).....	million lin. yds.	<sup>e</sup> 488.8	135.0	188.0	49.4
23930 16	Open mesh cotton.....	do.....	(NA)	2.3	23.8	3.2
23930 18	Spun paper.....	do.....	<sup>e</sup> 61.2	12.4	90.2	17.5
23930 31	Burlap.....	do.....	<sup>e</sup> 501.9	88.8	558.1	86.4
23930 95	Wholly or chiefly manmade fiber fabrics.....	do.....	32.4	9.2	10.1	3.3
23930 97	Other fabrics.....	do.....	9.1	2.3	-	-
23930 00	Textile bags, n.s.k. (For companies with 10 or more employees, See Note.).....		(X)	22.6	(X)	22.0
23930 02	Textile bags, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	3.8	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. <sup>e</sup>10 to 30 percent of the quantity item is estimated. (NA) Not available. n.s.k. Not specified by kind.  
(X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See Appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2393.--TEXTILE BAGS					
	Materials, containers, supplies, etc., total.....		(X)	181.9	(X)	123.6
	Broadwoven fabrics:					
221101	Cotton.....	Million lin. yds.	324.2	72.2	139.7	27.5
222105	Nylon.....	do.....	(NA)	( <sup>1</sup> )	(NA)	( <sup>1</sup> )
220127	Other broadwoven fabrics.....	do.....	<sup>e</sup> 507.3	60.8	495.2	62.4
229503	Plastic coated, impregnated or laminated fabrics.....	do.....	18.0	4.0	3.7	0.9
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	<sup>1</sup> 28.8	(X)	<sup>1</sup> 20.8
976000	Materials, containers, supplies, n.s.k. <sup>2</sup> .....		(X)	16.0	(X)	12.1

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Included in "All other materials, etc."

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2393, these small establishments accounted for approximately 1 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



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# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**

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**Bureau of the Census**  
Washington, D.C. 20233

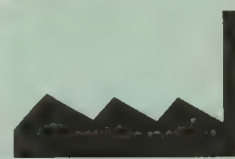
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Canvas products

SIC Code 2394

**preliminary  
report**

The Canvas and Related Products Industry includes establishments primarily engaged in manufacturing awnings, tents, and related products from purchased fabric. Establishments primarily engaged in manufacturing canvas bags are classified in industry 2393.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Canvas Products Industry amounted to

\$271.5 million, an increase of 63 percent compared with 1963. Value added by manufacture at \$126.2 million in 1967 was 72 percent more than value added in 1963. Average employment in the industry showed an increase of 35 percent from 1963 to a total of 15.1 thousand employees in 1967.

Of the \$271.5 million total value of shipments and other receipts of establishments classified as canvas products, \$15.5 million were products primary to other industries; and \$19.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2394.--CANVAS PRODUCTS													
1967 Census....	859	146	15.1	68.1	12.8	23.8	48.4	126.2	146.6	271.5	3.5	42.6	92	94
1966 ASM <sup>1</sup> .....	(NA)	(NA)	14.5	58.6	11.7	22.1	39.5	102.3	124.4	225.3	2.5	46.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	13.1	52.4	10.4	19.7	35.3	88.0	109.4	197.0	*3.0	37.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	11.4	47.2	9.2	18.3	32.1	82.9	97.9	177.6	*1.8	31.1	(NA)	(NA)
1963 Census....	881	124	11.2	44.5	9.0	17.6	30.6	73.5	93.1	166.4	2.1	28.2	92	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	11.5	43.3	9.3	18.0	29.5	71.0	90.2	161.1	2.3	25.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	10.7	39.4	8.6	16.2	26.2	65.0	85.4	149.0	(S)	27.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	11.8	42.1	9.5	18.6	28.0	69.5	87.7	155.5	(S)	25.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	10.3	37.4	8.2	16.1	25.1	58.9	80.5	139.9	(S)	22.6	(NA)	(NA)
1958 Census <sup>2</sup> ...	851	123	9.9	35.2	7.7	14.7	23.7	53.7	78.0	131.3	1.8	22.8	90	90

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

The total value of canvas products shipped by all producers in 1967 was \$251.3 million of which \$236.5 million, or 94 percent, were shipped by plants classified in industry 2394, Canvas Products, while the remainder was shipped by

plants classified in other industries. This percent, called the coverage ratio, was 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2394.—CANVAS PRODUCTS												
United States, total.....	859	146	15.1	68.1	12.8	23.8	48.4	126.2	146.6	271.5	3.5	11.2	73.5
New England.....	79	5	0.9	4.8	0.8	1.5	3.7	7.3	7.8	15.0	(D)	0.7	4.3
Massachusetts.....	41	4	0.7	3.8	0.6	1.2	3.0	5.6	6.4	11.9	(D)	0.5	3.0
Connecticut.....	19	-	0.1	0.4	0.1	0.1	0.3	0.7	0.6	1.2	(D)	0.1	0.7
Middle Atlantic.....	200	32	2.4	10.8	2.1	3.8	7.9	20.7	21.0	41.6	(D)	2.2	16.0
New York.....	118	24	1.7	7.7	1.4	2.6	5.5	14.2	13.4	27.6	0.2	1.4	10.1
New Jersey.....	37	3	0.2	1.0	0.2	0.4	0.8	2.3	2.5	4.7	(D)	0.2	2.6
Pennsylvania.....	45	5	0.5	2.2	0.5	0.8	1.6	4.2	5.1	9.3	(D)	0.5	3.3
East North Central....	176	39	3.0	14.3	2.5	4.6	9.4	23.5	31.0	54.7	0.8	2.8	17.5
Ohio.....	59	16	1.1	4.9	0.9	1.6	3.2	8.0	7.9	16.0	0.3	0.7	3.8
Indiana.....	14	5	0.4	2.2	0.4	0.8	1.5	3.2	5.7	8.8	0.3	0.5	3.1
Illinois.....	44	8	0.5	2.7	0.4	0.7	1.5	4.2	5.2	9.7	0.1	0.7	5.4
Michigan.....	40	6	0.6	2.8	0.5	0.9	2.0	4.5	7.9	12.3	0.1	0.6	3.5
Wisconsin.....	19	4	0.4	1.7	0.3	0.6	1.3	3.6	4.3	7.8	(Z)	0.2	1.8
West North Central....	75	16	1.9	9.0	1.7	3.0	6.6	16.2	19.5	36.7	0.7	1.6	11.3
Minnesota.....	12	2	0.2	1.0	0.2	0.4	0.7	1.1	1.9	3.0	0.2	0.2	1.3
Nebraska.....	7	1	0.1	0.3	0.1	0.1	0.2	0.6	0.4	1.0	(D)	(D)	(D)
South Atlantic.....	98	19	2.6	11.8	2.2	4.2	8.2	24.6	26.2	50.0	0.3	1.7	9.6
Virginia.....	9	4	0.4	1.4	0.4	0.7	1.3	2.9	1.9	4.8	0.1	(D)	(D)
Florida.....	41	6	0.6	2.8	0.5	1.0	2.1	5.7	4.1	9.7	0.1	0.3	1.5
East South Central....	32	8	1.8	6.5	1.6	2.9	5.0	15.9	18.8	33.8	0.4	0.6	2.9
West South Central....	49	7	0.6	2.8	0.5	1.0	2.0	4.5	7.5	12.2	0.2	0.5	3.3
Texas.....	35	4	0.4	1.9	0.4	0.7	1.4	3.1	5.1	8.4	0.2	0.3	2.3
West.....	151	20	1.7	8.0	1.5	2.8	5.6	13.5	14.8	27.7	0.4	1.1	8.7
Washington.....	19	2	0.2	1.0	0.2	0.3	0.6	2.0	2.1	4.1	(D)	0.2	1.5
California.....	93	14	1.2	5.7	1.1	2.1	4.1	8.9	10.3	18.7	(D)	0.7	5.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

- Represents zero.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Value of Shipments by All Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of shipments, including interplant transfers (million dollars)	
		1967	1963
2394- --	CANVAS PRODUCTS, TOTAL.....	251.3	153.5
23940 21	Awnings.....	24.3	15.3
23940 34	Tents:		
23940 36	Camping.....	41.0	29.8
	Other tents, including air-supported structures.....	39.9	
23940 53	Tarpaulins and other covers:		
23940 55	Flat.....	24.4	32.0
	Fitted.....	10.2	
23940 98	Other canvas products, except bags, including sails, air cushions, fuel containers, etc.....	15.1	41.0
23940 00	Canvas products, n.s.k. (For companies with 10 or more employees. See Note.).....	39.3	35.4
23940 02	Canvas products, n.s.k. (For companies with less than 10 employees. See Note.).....	21.1	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2394.--CANVAS PRODUCTS					
	Materials, containers, supplies, etc., total.....		(X)	135.2	(X)	83.7
	Broadwoven fabrics (piece goods) excluding coated, impregnated or laminated fabrics:					
221101	Cotton.....	1,000 lin. yds..	69.4	45.6	63.0	31.2
222101	Rayon and acetate.....	..do.....	3.5	3.2	( <sup>2</sup> )	( <sup>2</sup> )
222105	Nylon.....	..do.....	3.9	3.2	5.6	4.2
220127	Other broadwoven fabrics.....	..do.....				
229503	Plastic coated, impregnated or laminated fabrics.....	..do.....	5.2	7.9	2.9	3.3
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	42.0	(X)	18.8
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....		(X)	33.3	(X)	26.2

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967, this includes estimates for companies that were not mailed report forms.

<sup>2</sup>Included with other broadwoven fabrics.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2394, these small establishments accounted for approximately 7 percent of payrolls and 9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

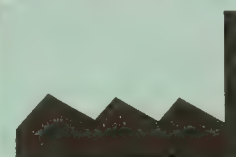
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**OFFICIAL BUSINESS**

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Pleating and stitching

SIC Code 2395

preliminary  
report

The Pleating, Decorative, and Novelty Stitching and Tucking for the Trade Industry includes establishments primarily engaged in pleating, decorative, and novelty stitching, and tucking for the trade. Establishments primarily engaged in performing similar services for individuals are classified in service industries. Establishments primarily engaged in manufacturing trimmings are classified in industry 2396.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Pleating and Stitching Industry amounted

to \$138.1 million, a decrease of 7 percent compared with 1963. Value added by manufacture at \$89.8 million in 1967 was 3 percent less than value added in 1963. Average employment in the industry showed a decrease of 17 percent from 1963 to a total of 13.4 thousand employees in 1967.

Of the \$138.1 million total value of shipments and other receipts of establishments classified as pleating and stitching, \$3.0 million were products primary to other industries; and \$17.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 97 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2395.—PLEATING AND STITCHING													
1967 Census....	1,105	205	13.4	53.7	12.3	22.0	45.4	89.8	48.4	138.1	1.4	7.4	98	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	13.4	46.7	11.6	21.2	36.5	85.4	43.2	123.0	*1.1	3.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	14.7	53.1	13.2	25.2	43.8	96.9	47.8	145.7	*2.8	4.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	18.1	58.9	15.7	29.9	49.8	104.3	56.8	161.7	*1.3	11.0	(NA)	(NA)
1963 Census <sup>2</sup> ...	1,316	245	16.4	55.5	14.7	28.0	46.3	95.2	55.1	150.2	2.8	10.9	97	98
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 13 and 12, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>For 1958-1962, industry 2395 was combined with industry 2396 due to lack of sufficient information received in the 1958 Census to properly classify them into one of the two industries.

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

The total value of pleating and stitching shipped by all producers in 1967 was \$120.6 million of which \$118.5 million, or 98 percent, were shipped by plants classified in industry 2395, Pleating and Stitching, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 98 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total  (number)	With 20 employees or more (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)						
	INDUSTRY 2395.—PLEATING AND STITCHING												
United States, total.....	1,105	205	13.4	53.7	12.3	22.0	45.4	89.8	48.4	138.1	1.4	16.4	95.2
New England.....	42	14	0.9	3.3	0.9	1.4	3.0	4.7	1.6	6.2	(Z)	0.9	4.2
Massachusetts.....	34	13	0.9	3.1	0.8	1.3	2.8	4.3	1.5	5.8	(Z)	0.9	3.9
Middle Atlantic.....	746	138	9.1	37.4	8.4	14.9	31.6	64.3	32.2	96.2	0.8	11.7	71.2
New York.....	531	112	7.1	30.2	6.5	11.7	25.3	51.5	27.5	78.7	0.7	9.5	57.9
New Jersey.....	171	15	1.3	4.8	1.2	2.2	4.3	9.3	3.6	12.9	0.1	1.6	11.1
Pennsylvania.....	44	11	0.7	2.4	0.6	1.1	2.0	3.5	1.1	4.6	(Z)	0.6	2.3
East North Central....	79	13	0.7	2.9	0.7	1.2	2.4	4.2	1.8	6.1	(Z)	1.0	5.9
Ohio.....	28	3	0.2	0.7	0.2	0.3	0.6	1.1	0.3	1.5	(D)	0.1	0.7
Illinois.....	30	9	0.5	2.0	0.4	0.7	1.6	2.7	1.3	4.0	(Z)	0.8	4.7
Michigan.....	12	1	0.1	0.2	0.1	0.1	0.2	0.4	0.2	0.5	(D)	(D)	(D)
West North Central....	27	7	0.4	1.9	0.4	0.7	1.4	3.7	2.6	6.3	0.2	0.4	2.0
South.....	86	19	1.2	4.4	1.1	2.0	3.6	6.3	6.9	13.4	(D)	(D)	(D)
North Carolina.....	18	6	0.4	1.3	0.3	0.6	1.1	1.6	3.6	5.1	0.2	(D)	(D)
West South Central	25	3	0.2	0.7	0.2	0.3	0.6	1.4	0.7	2.1	0.1	(D)	(D)
Texas.....	19	3	0.2	0.7	0.2	0.3	0.5	1.4	0.7	2.1	(D)	0.2	0.8
Pacific.....	109	14	1.1	3.7	1.0	1.7	3.2	6.4	3.2	9.6	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of shipments including interplant transfers (million dollars)	
		1967	1963
2395- --	PLEATING AND STITCHING, total.....	120.6	132.2
23951 --	Embroideries (except Schiffli machine products), stamped art goods, and art needlework, total.....	36.1	46.0
23951 12	Embroideries (except Schiffli machine products).....	18.2	23.3
23951 31	Stamped art goods for embroidering and punching.....	4.1	7.5
23951 00	Embroideries and stamped art goods, n.s.k.....	13.8	15.2
23959 --	Commission embroidering (except Schiffli machine) tucking, pleating, etc., for the trade, total...	44.6	54.6
23959 11	Embroidering (other than Schiffli machine) on materials owned by others.....	15.6	23.4
23959 31	Contract tucking, pleating, hemstitching, and buttonholing for the trade.....	27.5	29.9
23959 00	Commission receipts for embroidering, tucking, stitching, etc., n.s.k.....	1.5	1.2
23950 00	Embroideries, stamped art goods, art needlework, and commission receipts for such work, n.s.k. (For companies with 10 or more employees. See Note).....	21.5	31.6
23950 02	Embroideries, stamped art goods, art needlework, and commission receipts for such work, n.s.k. (For companies with less than 10 employees. See Note).....	18.4	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2395, these small establishments accounted for approximately 11 percent of payrolls and 14 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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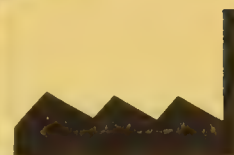
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Automotive and apparel trimmings

SIC Code 2396

**preliminary  
report**

The Automotive Trimmings, Apparel Findings, and Related Products Industry includes establishments primarily engaged in manufacturing automotive trimmings and apparel findings and related products.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Automotive and Apparel Trimmings Industry amounted to \$774.3 million, an increase of 36 percent compared with 1963. Value added by manufacture at \$333.5 million in 1967 was 46 per-

cent more than value added in 1963. Average employment in the industry showed an increase of 24 percent from 1963 to a total of 30.5 thousand employees in 1967.

Of the \$774.3 million total value of shipments and other receipts of establishments classified as automotive and apparel trimming plants, \$11.4 million were products primary to other industries; and \$23.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (per-cent)	Coverage ratio  (per-cent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2396---AUTOMOTIVE AND APPAREL TRIMMING													
1967 Census....	<sup>3</sup> 776	243	30.5	181.4	25.8	48.4	136.5	333.5	446.8	774.3	13.4	80.9	98	93
1966 ASM <sup>1</sup> .....	(NA)	(NA)	28.0	159.6	22.3	45.4	119.6	279.6	459.4	741.8	9.7	71.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	28.8	158.4	23.6	47.7	121.3	296.5	465.3	752.8	15.8	72.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	23.3	126.5	18.4	39.6	96.8	242.6	355.3	592.7	11.2	57.9	(NA)	(NA)
1963 Census <sup>2 4</sup> ..	756	213	24.5	122.6	20.8	40.1	94.2	227.8	343.5	570.6	8.3	55.9	98	97

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1963 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Data for 1967 are not strictly comparable with prior years because of misclassification of several plants. These establishments accounted for approximately 5 to 10 percent of total employment and value of shipments in 1967.

<sup>4</sup>Information for industry 2396 for the period 1958-1962 is combined with industry 2395 due to inadequate information filed in 1958 to properly classify them into one of the two industries.

Issued September 1969

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

The total value of automotive and apparel trimmings shipped by all producers in 1967 was \$795.3 million of which \$739.6 million, or 93 percent, were shipped by plants classified in industry 2396, Automotive and Apparel Trimmings, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 97 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2396.--AUTOMOTIVE AND APPAREL TRIMMINGS												
United States, total.....	776	243	30.5	181.4	25.8	48.4	136.5	333.5	446.8	774.3	13.4	24.5	227.8
New England.....	44	15	1.8	9.0	1.4	2.6	5.7	16.4	22.8	38.9	(D)	1.6	11.1
Massachusetts.....	22	8	1.4	7.1	1.0	1.9	4.1	14.6	14.9	29.4	(D)	1.3	7.6
Connecticut.....	14	3	0.2	0.8	0.2	0.3	0.7	1.4	0.9	2.3	(Z)	0.3	1.9
Middle Atlantic.....	502	145	9.8	46.0	8.4	15.3	33.1	82.2	90.4	171.7	(D)	9.3	66.2
New York.....	415	115	7.3	34.9	6.2	11.2	24.4	62.9	68.2	130.5	2.1	7.0	49.9
New Jersey.....	53	11	1.0	4.6	0.8	1.6	3.5	7.7	10.6	18.1	(D)	0.9	8.1
Pennsylvania.....	34	19	1.5	6.4	1.4	2.5	5.2	11.5	11.6	23.0	0.4	1.4	8.2
North Central.....	106	43	16.0	114.0	13.5	25.9	88.1	210.7	297.4	504.3	8.0	11.4	135.5
Illinois.....	40	17	1.9	7.9	1.6	2.9	5.8	15.4	35.7	51.3	(D)	1.6	14.0
South.....	69	27	2.0	8.6	1.8	3.3	6.7	17.6	29.1	45.8	(D)	1.4	8.5
South Atlantic.....	46	20	1.6	6.6	1.4	2.6	5.1	12.4	17.0	29.1	0.4	(D)	(D)
Maryland.....	6	4	0.4	1.7	0.3	0.7	1.3	2.9	5.7	8.7	(Z)	0.2	1.1
North Carolina....	11	5	0.6	2.4	0.6	1.0	1.9	4.5	3.8	8.2	0.2	0.3	1.9
Georgia.....	10	1	0.1	0.5	0.1	0.2	0.4	1.1	3.3	4.4	(Z)	0.1	1.2
Florida.....	10	4	0.3	1.1	0.2	0.4	0.8	2.2	2.8	4.7	0.1	(D)	(D)
West.....	55	13	0.8	3.8	0.7	1.3	2.9	6.7	7.2	13.7	(D)	0.8	6.6
California.....	46	13	0.8	3.6	0.7	1.2	2.8	6.3	6.8	12.9	(D)	0.8	6.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Value of Shipments by All Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of shipments including interplant transfers (million dollars)	
		1967	1963
2396- --	AUTOMOTIVE AND APPAREL TRIMMINGS, TOTAL <sup>1</sup> .....	795.3	556.3
23961 --	Men's and boys' suit and coat findings, hatters' fur, and other hat and cap materials, total.....	55.8	45.0
23961 11	Men's and boys' coat, suit, and trouser findings.....	44.1	34.0
23961 31	Hat bands, hat linings, tip printing and stamping, sweats, cap fronts, etc., made for sale as such.....	8.8	7.0
23961 51	Hatters' fur, cut or blown, for sale as such.....	2.9	3.9
23962 --	Automobile and furniture trimmings, total <sup>1</sup> .....	513.4	360.2
23962 16	Automobile.....	513.0	359.7
23962 17	Furniture.....	0.4	0.6
23963 --	Other trimmings and findings, total.....	190.9	127.4
	Trimmings, except automobile and furniture:		
23963 11	Women's and children's apparel findings and trimmings.....	59.5	38.4
23963 13	All other.....	41.1	20.2
23963 33	Bias binding for the apparel trade and the notion trade (except fused or sealed edge).....	39.6	16.0
	Ribbons, fused or sealed edge (not woven with fast edges):		
23963 41	Gift tyings.....	15.8	6.9
23963 49	All other.....	17.8	17.7
23963 99	All other trimmings and findings, n.s.k.....	17.0	28.2
23960 00	Apparel findings and related products, n.s.k. (For companies with 10 or more employees. See Note)	21.0	23.8
23960 02	Apparel findings and related products, n.s.k. (For companies with less than 10 employees. See Note).....	14.2	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

<sup>1</sup>Data for 1967 are not strictly comparable with 1963 because of product misclassification. Approximately 20-75 percent of the 1967 shipments data for product code 23962 16 were included in other product descriptions. Revised figures for previous years are not available.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2396, these small establishments accounted for approximately 2 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products**--In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture**--This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

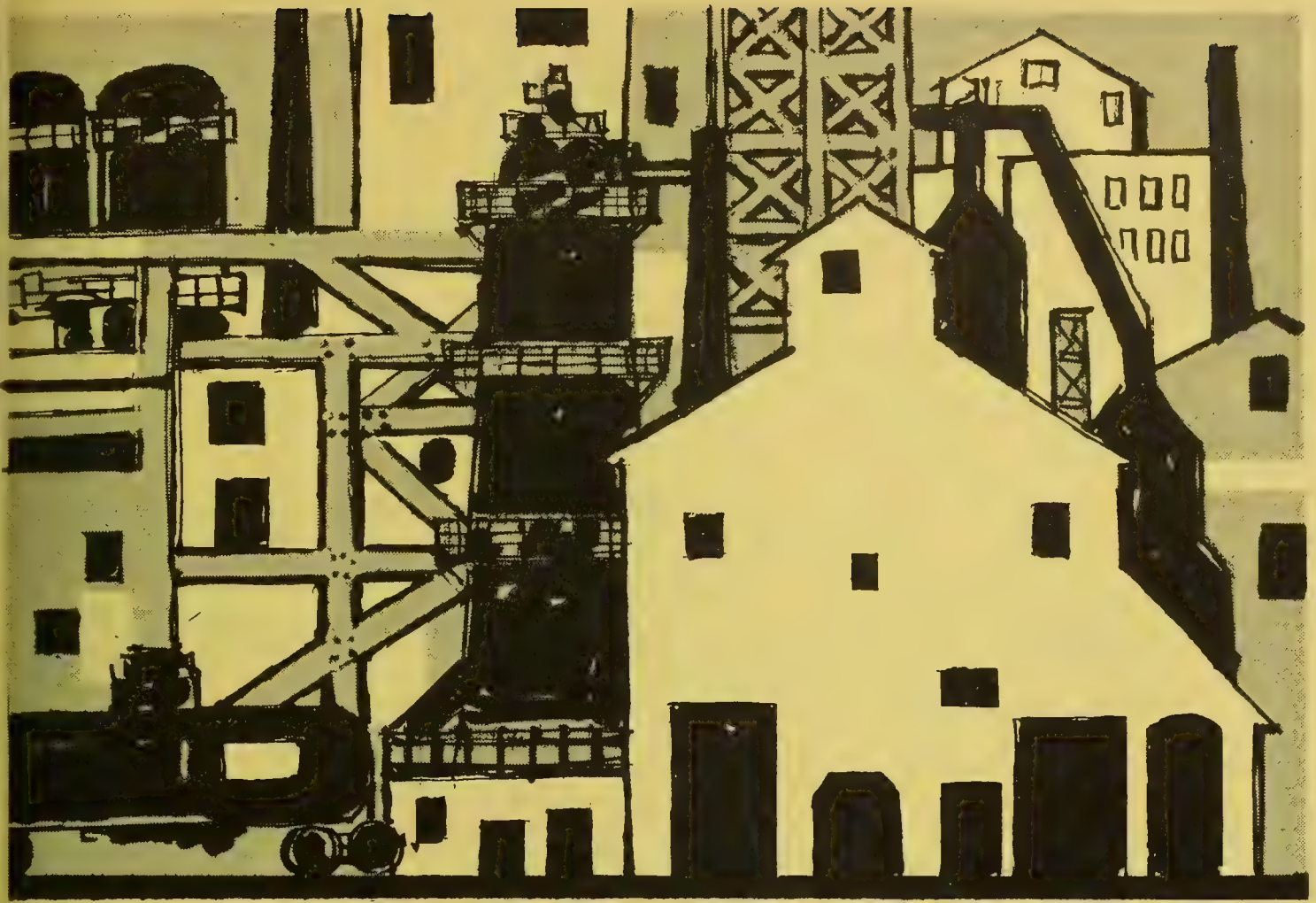
the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment**--For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories**--Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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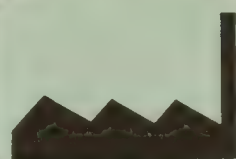
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Schiffli machine embroideries

**preliminary  
report**

SIC Code 2397

The Schiffli Machine Embroideries Industry includes establishments primarily engaged in manufacturing Schiffli machine embroideries.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Schiffli Machine Embroideries Industry amounted to \$99.6 million, an increase of 2 percent compared with 1963. Value added by manufacture at \$59.5 million in 1967 was 7 percent more than value added in 1963. Average employment in the industry showed a decrease of 11

percent from 1963 to a total of 5.4 thousand employees in 1967.

Of the \$99.6 million total value of shipments and other receipts of establishments classified as Schiffli machine embroideries, \$2.2 million were products primary to other industries; and \$14.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

The total value of Schiffli machine embroideries shipped by all producers in 1967 was \$83.6 million of which \$83.2 million, or 99 percent, were shipped by plants classified in

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2397.--SCHIFFLI MACHINE EMBROIDERIES													
1967 Census....	<sup>3</sup> 608	61	5.4	30.5	5.0	10.4	25.1	59.5	40.3	99.6	0.5	5.6	97	99
1966 ASM <sup>1</sup> .....	(NA)	(NA)	5.9	29.3	5.1	11.1	23.6	51.1	43.9	94.8	*2.8	4.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	6.1	29.0	5.5	10.9	23.8	50.7	45.6	96.0	*2.7	5.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	6.0	30.9	5.4	11.9	26.3	58.0	42.2	100.1	0.3	5.8	(NA)	(NA)
1963 Census....	759	58	6.1	30.5	5.5	11.9	26.0	55.4	42.2	97.4	2.4	5.9	96	99
1962 ASM <sup>1</sup> .....	(NA)	(NA)	5.7	25.9	5.0	10.7	21.2	45.4	29.0	73.6	*1.9	4.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	5.7	24.6	5.0	10.4	19.9	44.8	32.2	77.0	(S)	4.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	5.9	26.3	5.3	11.5	22.3	46.4	33.8	79.5	(S)	5.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	5.9	26.7	5.3	11.6	23.2	49.4	34.8	83.3	(S)	5.7	(NA)	(NA)
1958 Census <sup>2</sup> ...	703	48	5.7	24.5	5.1	10.8	20.8	44.3	31.3	75.5	3.6	5.4	99	97

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Some of the small establishments in this industry may have been misclassified as to industry. This does not significantly affect the statistics other than the number of establishments (See section of text on scope and coverage for further explanation).

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS**

industry 2397, Schiffler Machine Embroideries, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 99 percent in 1963.

2, and 4 may be compared with the product statistics in table 3.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2397.--SCHLIFFLI MACHINE EMBROIDERIES													
United States, total.....	608	61	5.4	30.5	5.0	10.4	25.1	59.5	40.3	99.6	0.5	6.1	55.4
Northeast.....	570	50	4.1	24.8	3.8	8.1	20.5	49.1	36.9	85.8	0.4	5.1	48.7
New York.....	44	6	0.4	2.4	0.4	0.7	1.9	5.0	4.0	9.0	(Z)	0.3	3.2
Pennsylvania.....	5	3	0.1	0.8	0.1	0.2	0.6	1.3	0.6	1.9	(Z)	0.4	3.0
North Central.....	14	4	0.3	1.3	0.3	0.5	1.0	2.6	0.7	3.3	(Z)	0.3	2.0
Illinois.....	7	4	0.2	1.0	0.2	0.4	0.8	1.5	0.3	1.8	(Z)	0.2	1.3
South.....	16	4	0.9	4.0	0.8	1.6	3.2	7.2	2.3	9.5	(D)	(D)	(D)
Pacific.....	8	3	0.1	0.5	0.1	0.2	0.4	0.6	0.4	1.0	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



**TABLE 3. Value of Shipments by All Producers: 1967 and 1963**

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of shipments including interplant transfers (million dollars)	
		1967	1963
23970 12	SCHIFFLI MACHINE EMBROIDERIES.....	83.6	73.0

**TABLE 4. Materials Consumed, by Kind: 1967 and 1963**

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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# Appendix

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*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

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**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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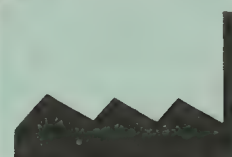
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-23E-8

## INDUSTRY SERIES

### Fabricated textile products, n.e.c.

SIC Code 2399

**preliminary  
report**

The Fabricated Textile Products, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing fabricated textile products, not elsewhere classified.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Fabricated Textile Products, N.E.C., Industry amounted to \$547.9 million, an increase of 60 percent compared with 1963. Value added by manufacture at \$230.2 million in 1967 was 58 percent more than value added in 1963. Average

employment in the industry showed an increase of 29 percent from 1963 to a total of 27.4 thousand employees in 1967.

Of the \$547.9 million total value of shipments and other receipts of establishments classified as fabricated textile products, n.e.c., \$44.4 million were products primary to other industries; and \$41.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 91 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

The total value of fabricated textile products, n.e.c., shipped by all producers in 1967 was

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2399.--FABRICATED TEXTILE PRODUCTS, N.E.C.													
1967 Census....	820	245	27.4	118.7	23.8	45.4	89.9	230.2	318.3	547.9	19.8	71.0	91	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	28.4	109.5	24.4	47.8	81.0	208.0	271.1	477.4	8.1	60.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	25.7	96.7	22.0	41.7	70.8	183.0	252.0	432.6	4.5	54.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	22.6	86.0	18.7	35.8	61.9	156.1	233.2	390.8	*4.4	48.5	(NA)	(NA)
1963 Census....	1,044	240	21.3	79.3	17.9	34.4	57.0	145.2	196.2	342.3	4.5	48.7	86	75
1962 ASM <sup>1</sup> .....	(NA)	(NA)	19.4	71.3	16.6	33.1	52.9	135.6	153.9	284.5	*2.8	41.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	18.5	64.2	15.7	30.3	46.6	124.0	149.0	268.7	(S)	35.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	18.2	62.9	15.1	28.6	44.4	115.9	144.4	261.6	(S)	32.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	19.6	64.2	16.5	31.0	46.6	114.1	157.6	270.3	(S)	38.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	919	212	17.9	57.8	14.7	27.7	41.3	98.1	146.5	247.1	2.8	35.1	88	76

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 5, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

\$530.6 million of which \$462.4 million, or 86 percent, were shipped by plants classified in industry 2399, Fabricated Textile Products, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 75 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2399.--FABRICATED TEXTILE PRODUCTS, N.E.C.												
United States, total.....	820	245	27.4	118.7	23.8	45.4	89.9	230.2	318.3	547.9	19.8	21.3	145.2
New England.....	59	10	1.1	5.0	0.9	1.6	3.5	8.6	7.3	15.6	0.4	1.7	9.2
Massachusetts.....	32	4	0.3	1.2	0.3	0.5	1.0	2.6	3.2	5.7	0.1	1.0	5.0
Connecticut.....	12	4	0.4	2.1	0.3	0.6	1.4	3.5	3.1	6.3	(D)	0.3	2.1
Middle Atlantic.....	265	81	8.1	35.0	7.0	13.8	26.8	66.2	88.4	152.5	9.4	6.8	46.8
New York.....	159	46	3.4	14.8	3.0	5.8	11.5	28.9	37.3	66.4	0.5	3.8	27.6
New Jersey.....	55	18	2.3	9.7	2.0	3.9	7.5	18.5	27.9	46.1	0.2	1.5	10.2
Pennsylvania.....	51	17	2.4	10.5	2.0	4.0	7.8	18.8	23.1	40.0	8.8	1.5	9.0
East North Central....	130	45	4.7	24.3	4.0	7.9	18.0	47.0	68.7	116.0	3.6	3.1	24.5
Ohio.....	37	8	0.8	3.4	0.7	1.2	2.3	5.9	5.7	11.6	(D)	0.9	5.1
Illinois.....	38	14	0.9	3.6	0.8	1.3	2.7	7.8	8.9	16.3	(D)	0.9	6.4
Michigan.....	25	11	2.0	12.1	1.7	3.5	8.9	22.8	39.7	63.1	(D)	1.0	10.3
West North Central....	39	17	2.3	9.5	2.1	3.6	7.4	13.8	19.5	33.5	0.4	2.0	11.4
Missouri.....	15	5	0.5	1.9	0.4	0.8	1.4	2.5	7.0	9.6	(D)	(D)	(D)
South Atlantic.....	92	31	4.1	15.6	3.6	6.6	11.8	31.0	59.8	91.6	1.4	2.8	19.4
Maryland.....	8	-	0.1	0.2	0.1	0.1	0.1	0.3	0.2	0.5	(D)	(D)	(D)
North Carolina.....	20	8	1.0	3.8	1.0	1.7	3.2	7.3	12.6	20.3	0.2	0.6	3.2
Georgia.....	21	13	1.2	5.4	1.0	1.9	3.3	11.3	30.6	41.9	0.2	1.0	7.1
East South Central....	39	15	3.5	13.8	3.1	6.0	11.0	36.4	36.3	73.5	2.4	1.4	8.9
Alabama.....	10	3	0.2	0.7	0.2	0.4	0.5	0.9	0.6	1.4	(Z)	(D)	(D)
West South Central....	41	6	0.4	1.3	0.3	0.6	1.0	3.1	2.2	5.3	(Z)	0.5	3.5
Oklahoma.....	8	2	0.1	0.2	0.1	0.1	0.2	0.6	0.4	1.0	(Z)	(D)	(D)
Texas.....	28	8	0.3	1.0	0.2	0.4	0.7	2.4	1.7	4.1	(Z)	0.4	3.1
Mountain.....	33	7	0.6	2.3	0.6	1.1	2.0	3.7	5.8	9.4	(D)	0.5	2.6
Pacific.....	122	33	2.6	11.6	2.3	4.2	8.3	20.1	30.4	50.5	(D)	2.6	18.8
California.....	108	28	2.1	9.3	1.8	3.3	6.7	15.7	23.1	38.6	0.7	2.0	14.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand. - Represents zero.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
			Quantity	Value (million dollars)		Quantity	Value (million dollars)
2399- -- 22110 pt.	FABRICATED TEXTILE PRODUCTS, N.E.C., TOTAL..... OTHER FABRICATED COTTON TEXTILE PRODUCTS(MADE IN WEAVING MILLS)..... Automobile seat covers, total.....	..... ..... 1,000 sets.....	} (X)	530.6	(X)	(X)	361.9
23990 12 23990 14	Fiber, including combinations with unsupported film..... Woven saran and other woven plastics, including combinations with unsupported film.....	...do..... ...do.....	(NA)	9.7	1,137	1,120	8.5
23990 16 23990 19 23990 10	Clear plastic..... Other..... Automobile seat covers, n.s.k.....	...do..... ...do..... ...do.....	808 (NA) 738 -	8.3 2.4 5.9 -	1,200 1,401 1,537 442	1,141 1,406 1,531 442	12.0 9.0 7.3 3.2
23990 21 23990 22	Seat or safety belts, including shoulder harness (except leather): Automobile..... Aircraft.....	1,000 units..... ...do.....	} e29,800	71.7	11,565	11,519	34.9
22110 33 23990 23 22110 35 23990 24	Diapers (excluding disposable).....	1,000 dozens....	22	38.9	(NA)	(NA)	30.1
23990 27 23990 31 23990 41	Disposable diapers (paper, nonwoven fabrics, etc.) except diaper liners..... Sleeping bags..... Flags, banners, and similar emblems.....	...do..... 1,000..... .....	e94,874 e2,742 (X)	45.5 26.0 20.7	19,040 2,106 (X)	19,040 2,100 (X)	6.2 22.7 26.9
23990 83 23990 89	Parachutes: Nylon..... Other fibers.....	1,000..... ..... .....	(NA) (NA)	72.5 8.3	(X) (X)	244 (NA)	28.2 0.8
23990 98 23990 00 23990 02	Other fabricated textile products, n.e.c..... Fabricated textile products, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.)..... Fabricated textile products, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	..... ..... .....	(X) (X) (X)	124.6 77.9 18.2	(X) (X) (X)	(X) (X) (X)	75.5 96.5

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

eFrom 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(X) Not applicable. - Represents zero.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2399.--FABRICATED TEXTILE PRODUCTS, N.E.C.					
	Materials, containers, supplies, etc., total.....		(X)	287.3	(X)	176.6
	Broadwoven fabrics (piece goods) excluding coated, impregnated or laminated fabrics:					
221101	Cotton.....	1,000 lin. yds...	122,910	34.2	121,053	25.1
222101	Rayon and acetate.....	...do.....	( <sup>1</sup> )	( <sup>1</sup> )	4,568	2.6
222105	Nylon.....	...do.....	<sup>e</sup> 87,114	36.6	23,086	12.3
220127	Other broadwoven fabrics.....	...do.....	(NA)	4.5	4,220	3.9
229503	Plastic coated, impregnated, or laminated fabric.....	...do.....	(NA)	13.0	10,142	7.2
307911	Unsupported plastic film and sheeting, excluding packaging material.....	1,000 sq. yds....	<sup>e</sup> 10,058	3.3	11,546	5.4
282014	Manmade fibers (staple and tow).....	1,000 lbs.....	11,556	5.0	12,888	4.4
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	132.5	(X)	63.8
976000	Materials, containers, supplies, n.s.k. <sup>2</sup> .....		(X)	58.2	(X)	51.9

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(X) Not applicable.

<sup>1</sup>Included with "All other materials, etc."

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967, this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2399, these small establishments accounted for approximately 4 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

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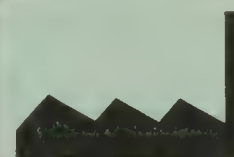








# 1967 CENSUS OF MANUFACTURES



MC67(P)-24A-1

## INDUSTRY SERIES

### Logging camps and logging contractors

SIC Code 2411

**preliminary  
report**

Logging Camps and Logging Contractors include establishments primarily engaged in cutting timber and in producing rough, round, hewn, or riven primary forest or wood raw materials. Independent contractors engaged in estimating or trucking timber, but who perform no cutting operations, are classified in nonmanufacturing industries. Logging and Woods operation conducted in combination with sawmills, pulpmills, or other converting establishments, and not separately reported, are classified in their respective industry groups; namely with sawmills in group 242, veneer and plywood mills in group 243, pulpmills in major group 26, and charcoal and wood distillation plants in group 286.

The classification of establishments for which data are tabulated in this report is based upon

the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as logging camps and logging contractors amounted to \$1,501.0 million, an increase of 30 percent compared with 1963. Value added by manufacture at \$705.2 million in 1967 was 36 percent more than value added in 1963. Average employment in the industry showed a decrease of 1.5 percent from 1963 to a total of 71.9 thousand employees in 1967.

Of the \$1,501.0 million total value of shipments and other receipts of establishments classified as logging camps and logging contractors, \$114.4 million were products primary to other

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2411.—LOGGING CAMPS AND LOGGING CONTRACTORS													
1967 Census....	16,338	601	71.9	347.1	68.7	128.1	313.1	705.2	793.7	1,501.0	103.9	106.6	99	93
1966 ASM <sup>1</sup> .....	(NA)	(NA)	72.5	310.3	66.9	126.1	282.7	655.9	699.2	1,361.8	118.6	92.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	73.7	301.3	67.7	125.4	281.8	619.7	652.2	1,297.8	118.3	94.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	70.7	297.8	63.4	120.1	265.3	556.5	709.0	1,240.1	*76.5	90.7	(NA)	(NA)
1963 Census....	13,588	557	73.1	281.8	65.8	122.5	254.1	520.5	630.2	1,154.7	95.6	99.6	99	90
1962 ASM <sup>1</sup> .....	(NA)	(NA)	69.3	249.4	63.4	117.6	222.7	463.0	529.7	992.6	59.1	84.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	71.4	247.2	64.7	119.2	218.9	449.0	525.8	979.2	59.6	89.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	73.1	247.6	66.9	120.2	220.8	439.3	537.7	978.6	80.2	88.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	75.8	250.5	69.0	124.0	225.3	442.0	523.5	982.7	71.4	93.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	12,828	557	71.7	228.0	62.6	108.9	195.8	390.4	475.6	868.3	68.4	116.0	98	92

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE**    **Maurice H. Stans, Secretary**  
**Rocco C. Siciliano, Under Secretary**  
**BUREAU OF THE CENSUS**

industries; and \$82.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 99 percent in 1963.

The total value of logging products and contract logging shipped by all producers in 1967 was \$1,523.3 million of which \$1,420.2 million, or 93 percent, were shipped by plants classified in industry 2411, Logging Camps and Logging

Contractors, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 90 percent, in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2411.—LOGGING CAMPS AND LOGGING CONTRACTORS													
United States, total.....	16,338	601	71.9	347.1	68.7	128.1	313.1	705.2	793.7	1,501.0	103.9	73.1	520.5
New England.....	1,106	50	5.8	26.8	5.4	10.9	23.7	49.5	62.0	110.4	7.4	5.2	29.3
Maine.....	825	43	4.6	21.8	4.3	8.8	19.4	40.4	49.4	88.7	6.0	4.1	23.7
New Hampshire.....	141	7	0.8	3.7	0.7	1.4	3.1	6.4	10.1	16.5	1.0	0.7	3.4
Vermont.....	109	-	0.3	1.1	0.3	0.5	1.0	2.1	1.9	4.1	0.4	0.3	1.7
Massachusetts.....	20	-	0.1	0.2	0.1	0.1	0.2	0.5	0.5	0.9	0.1	(D)	(D)
Middle Atlantic.....	435	8	1.4	5.4	1.4	2.6	4.9	12.6	11.8	24.4	2.1	1.4	9.1
New York.....	156	3	0.6	2.1	0.6	1.0	1.9	4.9	4.7	9.6	0.8	0.6	4.8
New Jersey.....	26	-	0.1	0.3	0.1	0.1	0.2	0.6	0.6	1.3	0.1	(D)	(D)
Pennsylvania.....	253	5	0.8	3.0	0.8	1.5	2.7	7.1	6.5	13.5	1.2	0.8	4.1
East North Central....	996	17	3.2	11.8	3.1	5.7	10.6	25.0	25.7	50.7	4.3	3.4	16.4
Ohio.....	75	2	0.2	0.8	0.2	0.4	0.7	1.9	2.0	3.9	0.4	0.2	0.9
Indiana.....	38	-	0.1	0.3	0.1	0.1	0.3	0.7	0.6	1.2	0.1	(D)	(D)
Illinois.....	40	1	0.2	0.6	0.2	0.3	0.5	1.4	1.8	3.2	0.3	0.1	0.8
Michigan.....	500	6	1.5	5.2	1.4	2.7	4.8	11.2	9.6	20.9	2.0	1.7	7.9
Wisconsin.....	343	8	1.3	4.9	1.2	2.2	4.4	9.9	11.7	21.5	1.6	1.3	6.2
West North Central....	426	12	1.6	6.0	1.5	2.7	5.1	11.6	21.0	32.7	1.8	2.0	8.6
Minnesota.....	313	9	1.2	4.4	1.1	1.9	3.6	8.2	16.6	24.9	1.2	1.6	6.4
Missouri.....	59	2	0.3	1.0	0.3	0.5	0.9	1.8	2.2	3.9	0.3	0.2	1.4
South Atlantic.....	5,548	65	15.0	53.0	14.8	27.7	48.9	114.4	109.9	224.2	18.5	17.1	74.1
Delaware.....	15	2	0.1	0.3	0.1	0.2	0.3	0.9	0.7	1.5	0.1	0.1	0.8
Maryland.....	67	4	0.3	1.2	0.3	0.6	1.1	3.9	2.5	6.4	0.3	0.2	1.4
Virginia.....	909	12	2.0	6.7	2.0	3.6	6.2	14.6	13.7	28.2	2.0	2.0	9.0
West Virginia.....	235	5	0.5	2.0	0.5	1.0	1.8	4.0	3.3	7.3	0.6	0.7	4.2
North Carolina.....	975	8	2.6	8.7	2.6	4.7	8.1	20.3	17.3	37.5	3.8	3.2	13.3
South Carolina.....	904	12	2.2	7.5	2.2	4.1	7.0	15.9	15.3	31.2	2.7	2.8	10.2
Georgia.....	1,726	10	4.4	15.5	4.4	8.2	14.4	31.5	33.8	65.4	5.0	5.2	20.3
Florida.....	717	12	2.8	11.1	2.8	5.2	10.1	23.4	23.3	46.7	3.9	2.9	14.9
East South Central....	2,592	29	5.6	19.6	5.6	10.4	18.1	41.5	40.2	81.8	5.9	6.0	24.1
Kentucky.....	98	2	0.3	0.9	0.3	0.5	0.8	1.8	1.7	3.5	0.2	0.4	1.3
Tennessee.....	228	1	0.4	1.4	0.4	0.7	1.3	2.6	2.8	5.5	0.3	0.6	1.8
Alabama.....	1,568	19	3.4	11.6	3.4	6.4	10.7	25.2	24.5	49.6	3.7	0.8	14.1
Mississippi.....	698	7	1.5	5.7	1.5	2.8	5.3	11.9	11.2	23.2	1.6	1.6	6.8
West South Central....	1,966	43	5.4	19.7	5.2	10.0	17.6	48.3	50.4	98.7	7.7	5.9	29.9
Arkansas.....	567	19	2.0	6.9	1.9	3.6	6.3	16.9	18.5	35.6	2.9	2.8	14.0
Louisiana.....	811	12	2.1	8.0	2.0	3.9	6.9	20.2	18.2	38.3	3.0	2.2	11.0
Texas.....	576	12	1.3	4.7	1.3	2.5	4.4	11.0	13.5	24.5	1.8	0.9	4.8
Mountain.....	636	68	5.7	32.5	5.5	10.4	29.9	58.9	60.7	118.8	10.6	4.9	44.5
Montana.....	214	20	1.6	8.2	1.6	3.0	7.4	16.9	15.8	32.8	1.5	1.6	16.2
Idaho.....	252	35	2.9	18.9	2.8	5.3	17.6	31.8	38.6	69.5	6.9	2.4	21.6
Arizona.....	40	6	0.4	2.2	0.4	0.8	2.0	4.0	2.0	6.0	0.8	0.2	1.7
Pacific.....	2,633	309	28.2	172.4	26.3	47.7	154.2	343.8	412.5	759.3	45.7	27.3	284.4
Washington.....	889	76	10.7	66.0	9.9	17.5	58.3	128.2	148.7	280.4	19.5	9.1	80.4
Oregon.....	1,160	154	11.6	69.9	10.8	19.7	62.7	141.4	180.7	322.0	18.3	12.3	136.7
California.....	526	82	4.9	28.5	4.6	8.6	25.8	62.1	75.8	137.5	6.2	5.2	59.9
Alaska.....	58	17	1.1	7.9	1.0	1.9	7.4	12.2	7.3	19.4	1.6	0.7	7.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

-Represents zero.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2411- --	LOGGING PRODUCTS AND CONTRACT LOGGING, TOTAL.....	.....	(X)	1,523.3	(X)	1,185.6
24110 --	Logs, bolts, and pulpwood.....	.....	(X)	1,252.9	(X)	849.3
24110 11	Logs and bolts.....	Million bd.ft. (log scale)..				
24110 31	Pulpwood (scaled in cords).....	1,000 Std.cds. (128 cu. ft.).	<sup>1</sup> 9,739.6	<sup>1</sup> 570.5	10,463.5	488.9
24110 41	Poles and piling.....	.....	<sup>1</sup> 5,148.9	<sup>1</sup> 106.3	8,549.3	139.8
24110 98	Other round or hewn products; including fencepost and hewn timbers and crossties.....	.....	(X)	23.5	(X)	36.1
24119 11	Receipts for contract logging of timber owned by others.....	.....	(X)	7.5		
24110 00	Logs, bolts, pulpwood, etc., n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	270.4	(X)	336.6
24110 02	Logs, bolts, pulpwood, etc., n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	161.2	(X)	184.5
			(X)	383.9		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Figure for 1967 not comparable with 1963 due to the large number of establishments not asked to report product detail.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967 delivered cost  (million dollars)	1963 delivered cost  (million dollars)
	INDUSTRY 2411.—LOGGING CAMPS AND LOGGING CONTRACTORS		
	Materials, containers, and supplies, total.....	504.5	396.2
081111	Cost of stumpage cut (excluding land value) for use in the manufacture of logs, lumber, veneer, plywood or other wood products.....		
970099	All other materials and components, parts, containers, and supplies.....	( <sup>1</sup> )	172.0
971000	All other materials and components, parts, containers, and supplies, n.s.k.....	<sup>1</sup> 71.8	62.4
		( <sup>1</sup> )	161.8

n.s.k. Not specified by kind.

<sup>1</sup>Data not available due to the large number of establishments with less than 10 employees which were not requested to report material detail.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2411, these small establishments accounted for approximately 24.1 percent of payrolls and 28.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

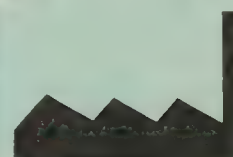
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Sawmills and planing mills, general

SIC Code 2421

Sawmills and Planing Mills include establishments primarily engaged in sawing rough lumber and timber from logs and bolts, or resawing cants and flitches into lumber, including box lumber and softwood cut stock, planing mills combined with sawmills; and separately operated planing mills which are engaged primarily in producing surfaced lumber and standard workings or patterns of lumber. This industry includes establishments primarily engaged in sawing lath and railroad ties, and in producing tobacco hogshead stock and snow fence lath. Establishments primarily engaged in manufacturing box shoo or boxes are classified in Group 244; sash, doors, wood molding, window and door frames, and other fabricated millwork in industry 2431; and hardwood dimension and flooring in industry 2426. Logging camps combined

with sawmills, when not separately reported, are included in this industry.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Sawmill and Planing Mills amounted to \$3,513.2 million, an increase of 11.1 percent compared with 1963. Value added by manufacture at \$1,559.6 million in 1967 was 13.3 percent more than value added in 1963. Average employment in the industry showed a decrease of 12.6 percent from 1963 to a total of 181.2 thousand employees in 1967.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2421.--SAWMILLS AND PLANING MILLS, GENERAL													
1967 Census....	10,300	1,928	181.2	886.2	165.4	324.3	756.2	1,559.6	1,950.9	3,513.2	129.4	517.6	92	95
1967 ASM <sup>1</sup> .....	(NA)	(NA)	195.0	871.5	176.0	346.7	742.9	1,555.7	1,866.3	3,390.8	163.5	513.1	(NA)	(NA)
1966 ASM <sup>1</sup> .....	(NA)	(NA)	201.6	876.9	181.5	358.7	736.5	1,458.2	1,872.2	3,351.4	172.8	508.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	199.0	902.2	177.8	354.2	730.2	1,516.8	1,827.2	3,338.1	152.2	565.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	12,189	2,151	207.4	811.6	186.6	364.2	701.7	1,376.1	1,779.3	3,156.3	172.5	558.6	89	95
1963 Census....	(NA)	(NA)	209.8	775.8	193.1	378.1	667.4	1,329.2	1,692.6	2,953.5	129.0	560.5	(NA)	(NA)
1962 ASM <sup>1</sup> .....	(NA)	(NA)	214.3	762.3	196.6	380.7	653.0	1,231.5	1,643.3	2,830.5	107.3	555.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	240.6	831.2	220.4	432.5	714.8	1,327.8	1,801.2	3,052.5	156.5	588.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	252.2	855.4	231.9	442.1	737.9	1,505.7	1,928.7	3,371.4	129.8	575.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	15,637	2,487	245.9	770.9	215.9	407.4	656.2	1,195.8	1,711.7	2,917.3	129.4	552.4	92	97
1958 Census <sup>2</sup> ...														

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 6 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

Of the \$3,513.2 million total value of shipments and other receipts of establishments classified as Sawmills and Planing Mills, \$159.6 million were products primary to other industries; and \$133.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

\$3,279.3 million of which \$3,120.3 million, or 95 percent, were shipped by plants classified in industry 2421, Sawmills and Planing Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 95 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

The total value of Sawmill and Planing Mill Products shipped by all producers in 1967 was

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2421, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Report series:

MA24T, Lumber Production and Stocks



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2421.--SAWMILLS AND PLANING MILLS, GENERAL													
United States, total.....	10,288	1,928	181.2	886.2	165.4	324.3	756.2	1,559.6	1,950.9	3,513.2	129.4	207.4	1,376.1
New England.....	552	47	4.2	17.4	3.9	7.6	14.8	34.1	39.7	73.4	3.4	4.7	24.4
Maine.....	211	20	1.8	7.5	1.7	3.4	6.5	14.2	16.7	30.9	2.4	2.1	9.3
New Hampshire.....	109	10	0.9	3.8	0.8	1.5	3.2	7.4	9.0	16.2	0.4	0.8	5.0
Massachusetts.....	96	3	0.5	2.4	0.5	1.0	2.0	5.9	6.5	12.4	0.2	0.6	4.0
Connecticut.....	36	1	0.1	0.5	0.1	0.2	0.4	0.9	0.8	1.6	(Z)	0.1	0.7
Middle Atlantic.....	914	68	6.6	26.9	6.1	11.9	23.0	54.0	55.9	109.1	4.9	6.9	40.2
New York.....	240	30	2.2	9.4	2.0	4.0	8.1	19.3	21.3	40.2	1.8	2.5	14.6
New Jersey.....	37	3	0.3	1.5	0.3	0.5	1.2	3.4	3.4	6.6	(Z)	0.3	2.8
Pennsylvania.....	637	35	4.1	16.0	3.9	7.3	13.7	31.2	31.2	62.3	3.0	4.1	22.8
East North Central....	1,135	101	8.1	32.8	7.5	14.3	27.9	66.1	64.0	128.7	3.7	8.5	46.3
Ohio.....	328	20	1.8	7.0	1.7	3.2	6.1	13.6	14.6	27.9	0.7	1.7	10.6
Indiana.....	210	18	1.5	6.2	1.4	2.6	5.1	12.6	12.6	25.0	0.5	1.4	7.1
Illinois.....	129	8	0.7	2.8	0.7	1.3	2.5	5.6	5.8	11.3	0.4	0.9	4.5
Michigan.....	267	35	2.5	10.9	2.3	4.5	9.3	22.4	18.9	40.5	1.8	2.5	14.3
Wisconsin.....	201	20	1.5	5.9	1.4	2.7	5.0	11.9	12.1	24.0	0.4	2.0	9.7
West North Central....	536	35	3.0	11.6	2.8	5.2	9.5	22.9	22.5	45.2	1.6	3.5	18.7
Minnesota.....	128	13	0.8	3.1	0.7	1.3	2.5	6.4	5.9	12.2	0.3	0.8	4.5
Missouri.....	288	12	1.3	4.7	1.2	2.2	3.7	8.9	10.9	19.7	0.4	1.8	8.1
South Dakota.....	20	4	0.3	1.7	0.3	0.7	1.5	3.4	1.8	5.1	0.2	(D)	(D)
Kansas.....	23	3	0.2	0.6	0.2	0.3	0.5	1.4	1.5	3.0	(D)	0.2	1.5
South Atlantic.....	3,062	468	34.3	120.1	31.9	59.7	101.7	236.2	305.2	537.6	16.3	43.8	198.5
Virginia.....	791	94	6.9	23.7	6.4	11.6	20.1	50.8	61.7	111.8	2.8	9.0	40.1
West Virginia.....	333	47	3.8	14.9	3.5	7.1	12.9	29.0	27.3	54.3	2.0	4.2	18.9
North Carolina.....	926	106	8.1	28.0	7.5	13.8	23.7	55.4	72.1	126.3	2.8	12.0	51.1
South Carolina.....	299	69	5.2	16.7	4.9	9.0	14.1	28.2	41.8	71.1	2.3	5.5	24.5
Georgia.....	475	105	7.0	23.9	6.6	12.2	20.2	48.1	71.0	119.0	4.7	8.9	41.6
Florida.....	113	26	2.2	9.0	2.1	4.0	7.4	17.3	21.8	38.3	0.9	2.4	13.9
East South Central....	1,666	316	23.3	83.7	21.4	42.0	70.1	159.2	190.5	348.1	15.3	27.6	122.8
Kentucky.....	342	39	2.7	9.2	2.5	4.6	7.6	19.5	20.4	39.4	1.2	3.8	16.2
Tennessee.....	583	63	4.2	14.4	4.0	7.1	11.9	29.9	34.7	64.7	1.6	5.6	23.5
Alabama.....	433	118	9.7	35.6	8.9	18.2	30.0	66.5	79.9	145.7	(D)	10.8	50.2
Mississippi.....	308	96	6.6	24.5	6.0	12.0	20.6	43.2	55.5	98.3	(D)	7.4	32.8
West South Central....	838	219	23.2	96.0	21.3	44.9	81.7	158.5	175.0	333.1	13.9	26.3	148.4
Arkansas.....	400	88	8.9	37.1	8.2	17.4	32.2	60.8	71.7	132.0	5.1	10.2	60.2
Texas.....	208	60	6.9	28.5	6.3	13.1	23.0	50.6	47.3	97.4	3.0	(D)	(D)
Mountain.....	533	182	17.8	102.4	16.2	32.5	89.6	169.0	211.5	384.0	11.9	18.5	149.3
Idaho.....	141	69	6.4	38.7	5.9	11.7	34.6	69.3	91.7	162.5	4.1	7.2	61.3
Wyoming.....	46	10	0.6	3.1	0.6	1.2	2.7	7.0	6.6	12.7	0.9	0.6	4.9
Pacific.....	1,052	492	60.5	395.3	54.2	106.2	337.9	659.5	886.4	1,554.0	58.5	67.5	627.6
Washington.....	308	108	15.3	97.6	13.9	27.0	84.7	148.2	206.7	358.3	15.1	17.4	147.4
California.....	320	171	19.7	129.7	17.5	35.1	110.5	232.5	280.7	517.6	17.3	23.5	232.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2421- --	SAWMILL AND PLANING MILL PRODUCTS, TOTAL.....	.....	(X)	3,279.3	(X)	2,888.2
24211 --	Rough lumber and sawed ties, total.....	.....	(X)	654.7	(X)	822.8
24211 32	Railway crossties and mine ties.....	Number.....	(NA)	17.0	(S)	19.7
	Rough lumber:					
	Softwood:					
24211 61	Boards—lumber less than 2-inches in nominal thickness.....	Million bd.ft.	1,913.1	156.7	10,840.1	788.8
24211 63	2-inch lumber—2-inch nominal thickness only.....	do.....	1,747.5	133.5		
24211 65	Lumber and timbers—over 2-inches in nominal thickness.....	do.....	884.2	73.7		
24211 67	Hardwood (including all hardwood rough lumber).....	do.....	2,291.6	236.7		
24211 00	Rough lumber and sawed ties, n.s.k.....	.....	(X)	37.1	(X)	14.3
24212 --	Dressed lumber, total.....	Million bd.ft.	(X)	1,751.9		
	Softwood:					
24212 21	Boards—lumber less than 2-inches in thickness.....	do.....	81,723	724.3	20,321.2	1,575.3
24212 23	Lumber—2-inches nominal thickness only.....	do.....	10,046.0	776.1		
24212 25	Lumber and timbers—over 2-inches in nominal thickness.....	do.....	1,656.4	143.0		
24212 27	Hardwood (including all hardwood dressed lumber).....	do.....	<sup>e</sup> 727.4	74.4		
24212 00	Dressed lumber, n.s.k.....	.....	(X)	35.1		
24215 76	Wood chips.....	.....	(X)	185.6	(X)	93.6
24215 77	Short tons.....	1,000 short tons.....	(NA)	(X)	(X)	(X)
24215 78	Standard units (one standard unit—200 cu. ft. of gravity packed chips—one standard cord).....	1,000 cords (128 cu. ft.).....	(NA)	(X)	8,875	(X)
24217 --	Softwood cut stock, total.....	.....	(X)	84.1	(X)	87.9
24217 11	Furniture cut stock.....	Million bd.ft.	184.2	28.4	109.4	16.2
24217 51	Other industrial cut stock.....	do.....	346.6	55.4	561.4	67.7
24217 00	Softwood cut stock, n.s.k.....	.....	(X)	0.3	(X)	4.1
24218 --	Softwood flooring and other general sawmill and planing mill products, total.....	.....	(X)	54.4	(X)	57.4
24218 11	Softwood flooring.....	Million bd.ft.	<sup>e</sup> 120.5	13.0	114.5	13.5
24218 29	Other sawmill products, including tobacco hogshead stock and snow-fence lath.....	.....	(X)	26.6	(X)	29.6
24218 98	Other planing mill products.....	.....	(X)	13.7	(X)	11.3
24218 00	Other general sawmill and planing mill products, n.s.k.....	.....	(X)	1.1	(X)	3.0
24219 --	Contract or custom sawing of logs owned by others, total.....	.....	(X)	31.2	(X)	51.7
24219 11	Receipts for contract or custom sawing of logs owned by others.	Million bd.ft.	<sup>e</sup> 662.2	14.4	2,134.7	29.0
24219 51	Receipts for contract kiln-drying, planing, resawing, or other manufacturing of lumber owned by others.....	.....	<sup>e</sup> 940.8	13.6	(X)	21.9
24219 00	Custom sawing, kiln-drying, and planing, n.s.k.....	.....	(X)	3.2	(X)	1.0
24210 00	Sawmill and planing mill products, n.s.k. (For companies with 10 or more employees. See note).....	.....	(X)	253.8	(X)	199.6
24210 02	Sawmill and planing mill products, n.s.k. (For companies with less than 10 employees. See note).....	.....	(X)	263.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup> From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

(Z) Less than 0.1 when rounded.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2421.—SAWMILLS AND PLANING MILLS, GENERAL					
	Materials, parts, and supplies, total.....		(X)	1,620.7	(X)	1,430.1
081111	Cost of stumpage cut (excluding land value) for use in the manufacture of logs, lumber, veneer, plywood or other wood products.....		(X)	311.0	(X)	336.2
241111	Logs, bolts and unsliced flitches: Hardwood.....	Million ft. (log scale).....	2,722.7	140.3	15,061.6	520.6
241112	Softwood.....	do.....	9,939.7	508.3		
242110	Rough lumber: Hardwood.....	Million bd. ft....	<sup>e</sup> 640.8	47.6	620.0	32.0
242118	Softwood.....	do.....	2,145.1	132.8	2,485.2	149.8
242111	Rough lumber, hardwood and softwood.....	do.....	(X)	(X)	556.8	20.7
242121	Dressed lumber: Hardwood.....	do.....	(NA)	5.9	39.6	3.8
242128	Softwood.....	do.....	719.8	57.1	629.0	41.4
970099	All other materials and components, parts, containers, and supplies consumed, n.e.c.....		(X)	187.4	(X)	146.5
973000	All other materials, parts, and supplies consumed, including materials, etc., n.s.k.....		(X)	230.3	(X)	179.2

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2421, these small establishments accounted for approximately 6.2 percent of payrolls and 8.1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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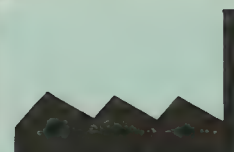
**OFFICIAL BUSINESS**

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES

MC67(P)-24A-3



INDUSTRY SERIES

preliminary  
report

## Hardwood dimension and flooring

SIC Code 2426

The Hardwood Dimension and Flooring Industry includes establishments primarily engaged in manufacturing hardwood dimension lumber and workings therefrom; and other hardwood dimension, semifabricated or ready for assembly; and hardwood flooring. Establishments primarily engaged in manufacturing stairwork, molding, and trim are classified in industry 2431; and those manufacturing textile machinery bobbins, picker sticks, and shuttles in industry 3552.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Hardwood Dimension and Flooring Industry amounted to \$373.5 million, an increase of 8 percent compared with 1963. Value added by manufacture at \$176.4 million in 1967 was 14 percent more than value added in 1963. Average employment in the industry of 28.0 thousand employees in 1967 was approximately the same as in 1963.

Of the \$373.5 million total value of shipments and other receipts of establishments classified as hardwood dimension and flooring mills, \$47.7 million were products primary to other industries;

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2426.—HARDWOOD DIMENSION AND FLOORING														
1967 Census....	667	331	28.0	114.6	25.3	51.5	93.4	176.4	198.5	373.5	12.5	64.6	87	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	30.1	118.5	27.4	57.8	98.0	192.6	224.1	414.3	15.0	73.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	30.4	114.6	27.7	59.0	95.2	181.2	215.3	399.0	*13.8	63.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	29.5	109.3	26.6	56.7	90.4	176.2	204.0	378.2	*10.0	64.5	(NA)	(NA)
1963 Census....	642	317	28.1	98.9	25.4	52.9	81.7	155.1	189.4	345.2	7.1	63.9	86	86
1962 ASM <sup>1</sup> .....	(NA)	(NA)	26.2	85.2	22.5	46.9	68.7	131.1	175.4	305.2	5.3	56.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	25.4	77.7	21.6	43.8	61.5	124.9	154.2	280.3	5.0	51.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	27.7	84.0	24.1	49.7	68.2	133.6	174.7	307.5	6.0	57.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	28.6	86.7	24.8	52.4	70.7	144.8	186.2	326.1	9.1	56.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	436	263	25.1	75.2	22.5	45.3	60.8	110.4	152.0	260.6	7.6	52.7	84	82

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

and \$13.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

The total value of hardwood dimension and flooring products shipped by all producers in 1967 was \$361.2 million of which \$312.0 million, or 87 percent, were shipped by plants classified in industry 2426, Hardwood Dimension and

Flooring, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 86 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2426.-HARDWOOD DIMENSION AND FLOORING													
United States, total.....	667	331	28.0	114.6	25.3	51.5	93.4	176.4	198.5	373.5	12.5	28.1	155.1
Northeast.....	135	51	3.0	14.1	2.6	5.6	11.5	21.9	25.0	46.7	1.7	2.8	17.6
Maine.....	15	8	0.4	2.0	0.4	0.9	1.7	3.9	4.3	8.3	(D)	0.4	2.7
New Hampshire.....	11	8	0.1	0.4	0.1	0.2	0.3	0.6	0.6	1.2	(Z)	(D)	(D)
New York.....	34	15	0.8	3.5	0.7	1.5	3.0	5.6	5.8	11.5	0.5	0.8	5.4
New Jersey.....	7	-	0.1	0.4	0.1	0.1	0.3	0.7	0.7	1.4	(Z)	(D)	(D)
East North Central....	85	41	3.0	13.7	2.7	5.1	10.5	22.7	21.9	43.6	2.1	2.9	19.1
Ohio.....	12	5	0.4	1.7	0.3	0.7	1.3	3.6	3.3	6.6	0.4	(D)	(D)
Illinois.....	22	8	0.5	2.5	0.5	0.9	2.0	3.5	3.2	6.6	0.1	0.5	2.5
West North Central....	34	16	1.4	6.0	1.3	2.4	4.8	9.8	8.6	18.3	0.4	1.2	7.0
Missouri.....	21	14	1.3	5.4	1.2	2.3	4.4	8.7	7.6	16.1	0.3	1.0	6.5
South Atlantic.....	155	89	6.6	25.2	6.0	12.2	21.0	39.0	41.6	80.2	2.7	6.5	31.0
Virginia.....	21	15	1.8	6.7	1.6	3.3	5.6	9.5	11.6	20.3	0.5	2.0	9.0
West Virginia.....	11	8	0.3	1.4	0.3	0.7	1.2	2.6	2.1	4.6	0.1	0.3	1.4
North Carolina.....	76	43	3.0	11.7	2.7	5.4	9.7	17.6	18.3	36.4	1.2	2.6	12.5
Georgia.....	22	10	0.7	2.6	0.6	1.2	2.0	4.4	4.4	8.9	0.3	0.8	4.5
East South Central....	133	83	9.8	39.4	8.9	18.3	32.2	59.8	70.9	130.7	3.9	9.3	52.9
Kentucky.....	30	18	1.8	8.2	1.6	3.2	6.6	12.6	13.9	26.7	0.8	(D)	(D)
Tennessee.....	55	38	4.6	18.0	4.1	8.4	14.6	25.7	34.1	59.9	1.2	4.9	29.5
West South Central....	79	43	3.7	13.8	3.4	7.0	11.5	19.1	27.5	46.8	1.3	5.1	25.4
West.....	35	8	0.5	2.3	0.4	0.8	1.8	4.0	3.1	7.0	0.4	0.3	2.2
Washington.....	11	3	0.2	0.7	0.1	0.3	0.7	1.3	1.2	2.4	(D)	0.1	1.3
California.....	17	3	0.2	1.1	0.2	0.4	0.8	2.2	1.4	3.6	0.1	(D)	(D)

Note: Only those regions, divisions, or States having a minimum of 10 establishments are shown.

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

- Represents zero.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2426 --	HARDWOOD DIMENSION AND FLOORING, TOTAL.....		(X)	361.2	(X)	334.2
24261 --	Hardwood flooring, total.....		(X)	127.4	(X)	154.2
24261 11	Oak: 25/32", 1/2", 3/8" T and G and EM and 5/16" square edge strip.	Million bd. ft.	603.8	89.4	793.9	117.4
24261 19	Oak specialty flooring including block, parquetry, plank, oak-faced and/or backed plywood blocks, and other oak specialty flooring.....	...do.....	58.2	20.0	98.9	21.4
24261 31	Maple, including strip, block, parquetry.....	...do.....	26.0	7.3	34.8	7.8
24261 98	Other hardwoods.....	...do.....	<sup>e</sup> 64.6	8.4	15.9	5.6
24261 00	Hardwood flooring, n.s.k.....		(X)	2.3	(X)	2.0
24262 --	Hardwood dimension stock, furniture parts, and vehicle stock, total.....		(X)	213.3	(X)	169.8
24262 23	Furniture dimension, including glued laminates: Kiln-dried, rough or surfaced.....	Million bd. ft.	<sup>e</sup> 401.0	78.0	201.9	46.3
24262 25	Air dried, rough or surfaced.....	lumber cons...	<sup>e</sup> 42.5	4.7		22.8
24262 51	Semifabricated.....	...do.....	30.4	8.6		45.6
24262 81	Completely fabricated ready for assembly, including furniture parts, except frames.....	...do.....	<sup>e</sup> 199.3	61.1	150.5	
24262 84	Other industrial dimension stock (for handles, golf clubs, agricultural implements, railroad cars, vehicle parts, ladder parts, skis, gunstocks, brushes, textile machinery stock, and semifabricated industrial parts).....	...do.....	<sup>e</sup> 175.7	42.2	129.0	31.5
24262 89	Other completely fabricated hardwood industrial parts, including vehicle stock.....	...do.....	<sup>e</sup> 40.2	11.5	46.1	13.5
24262 00	Hardwood dimension stock, n.s.k.....		(X)	7.2	(X)	10.2
24260 00	Hardwood dimension and flooring, n.s.k.(For companies with 10 or more employees. See Note).....		(X)	12.9	(X)	10.2
24260 02	Hardwood dimension and flooring, n.s.k.(For companies with less than 10 employees. See Note).....		(X)	7.6	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2426.—HARDWOOD DIMENSION AND FLOORING					
	Materials, containers, and supplies, total.....	.....	(X)	185.2	(X)	170.9
081111	Cost of stumpage cut (excluding land value), etc.....	.....	(X)	3.3	(X)	2.1
	Logs, bolts and unsliced flitches:					
241111	Hardwood.....	Million ft.....	<sup>e</sup> 298.0	20.3	320.1	16.8
241112	Softwood.....	...do.....	21.7	1.6		
	Rough lumber:					
242110	Hardwood.....	Million bd. ft...	1,021.7	99.1	1,232.5	98.3
242118	Softwood.....	...do.....	57.8	4.9		
	Dressed lumber:					
242121	Hardwood.....	...do.....	<sup>e</sup> 20.3	3.0	29.2	3.6
242128	Softwood.....	...do.....	<sup>e</sup> 14.1	1.2		
970099	All other materials and components, parts, containers, and supplies consumed, n.e.c.....	.....	(X)	27.2	(X)	23.1
971000	All other materials and components, parts, containers, and supplies consumed, n.s.k.....	.....	(X)	24.6	(X)	22.8

<sup>e</sup>From 10 to 30 percent of this figure was estimated

<sup>e</sup>From 10 to 30 percent of this figure was estimated.

n.e.c. Not elsewhere classified.

n.s.k. Not specified by kind.

(X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2426, these small establishments accounted for approximately 1.6 percent of payrolls and 2.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

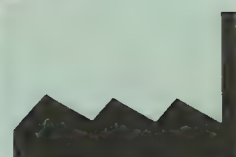
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Special product sawmills, n.e.c.

SIC Code 2429

**preliminary  
report**

Special Product Sawmills, Not Elsewhere Classified, include mills primarily engaged in manufacturing excelsior, wood shingles, and cooperage stock; and in sawing special products, not elsewhere classified.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Special Product Sawmills, N.E.C., amounted to \$119.7 million, an increase of 14.3 percent compared with 1963. Value added by manufacture at \$51.6 million in 1967 was

24.6 percent more than value added in 1963. Average employment in the industry remained the same as in 1963 with a total of 7.2 thousand employees in 1967.

Of the \$119.7 million total value of shipments and other receipts of establishments classified as special product sawmills, n.e.c., \$6.0 million were products primary to other industries; and \$5.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 96 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total  (number)	With 20 employees or more (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)							
INDUSTRY 2429.--SPECIAL PRODUCT SAWMILLS, N.E.C.														
1967 Census....	529	108	7.2	28.6	6.8	11.8	25.4	51.6	66.8	119.7	2.7	21.5	96	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	26.3	6.4	11.3	22.3	39.9	70.4	109.7	*2.8	21.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	25.9	6.5	11.3	22.8	44.6	63.6	108.2	1.8	18.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	26.0	6.6	11.2	22.6	41.5	55.3	97.2	*2.4	19.2	(NA)	(NA)
1963 Census....	541	107	7.2	25.2	6.6	11.1	22.4	41.4	52.6	96.0	2.0	19.1	98	( <sup>3</sup> )
1962 ASM <sup>1</sup> .....	(NA)	(NA)	7.0	22.8	6.6	11.9	21.2	25.9	34.7	68.6	3.9	14.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	7.0	20.6	6.6	11.4	19.0	26.6	33.7	70.3	2.5	15.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1958 Census <sup>2</sup> ...	478	105	7.2	22.1	6.5	10.7	18.8	36.1	56.2	89.4	1.7	22.3	93	60

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 7, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Coverage ratio not available but should approximate that for 1967 (95 percent).

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of special product sawmill goods, n.e.c., shipped by all producers in 1967 was \$115.8 million of which \$109.8 million, or 95 percent, were shipped by plants classified in industry 2429, Special Product Sawmills, N.E.C., while the remainder was shipped by plants classified in other industries.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2429.--SPECIAL PRODUCT SAWMILLS, N.E.C.												
United States, total.....	529	108	7.2	28.6	6.8	11.8	25.4	51.6	66.8	119.7	2.7	7.2	41.4
Northeast.....	27	1	0.2	0.8	0.2	0.4	0.7	1.6	2.0	3.6	0.1	0.3	1.6
East North Central....	42	16	0.9	3.8	0.8	1.4	3.2	5.6	7.0	13.4	0.5	0.8	4.9
Ohio.....	12	3	0.1	0.5	0.1	0.2	0.4	0.8	1.3	2.3	0.1	(D)	(D)
Illinois.....	17	6	0.3	1.3	0.3	0.5	1.1	1.5	2.9	4.9	0.1	0.2	1.6
West North Central....	46	6	0.5	1.7	0.4	0.8	1.4	2.6	5.4	8.2	0.2	0.4	1.4
Missouri.....	37	6	0.4	1.5	0.4	0.7	1.2	2.2	4.8	7.3	0.2	0.3	1.2
South Atlantic.....	71	16	1.0	3.5	1.0	1.7	3.0	6.1	7.8	13.8	0.5	1.3	5.2
Virginia.....	18	5	0.3	1.2	0.3	0.5	1.0	1.9	2.3	4.1	0.3	0.4	1.4
West Virginia.....	8	1	0.1	0.3	0.1	0.2	0.3	0.6	1.1	1.7	0.1	(D)	(D)
North Carolina.....	25	4	0.3	0.9	0.3	0.5	0.8	1.7	2.3	4.0	0.1	0.4	1.5
Georgia.....	12	2	0.2	0.5	0.2	0.2	0.4	0.7	0.6	1.3	(Z)	0.2	0.8
East South Central....	59	18	0.9	3.2	0.9	1.6	2.8	5.4	9.5	14.8	0.3	0.7	3.0
Kentucky.....	29	8	0.4	1.2	0.4	0.7	1.2	2.6	3.7	6.0	0.1	(D)	(D)
Tennessee.....	12	3	0.2	0.7	0.2	0.3	0.6	0.8	3.5	4.6	0.1	0.2	0.7
West South Central....	32	7	1.0	2.6	0.9	1.9	2.3	6.2	7.1	13.5	0.1	0.5	1.2
West.....	252	44	2.7	13.0	2.6	4.0	12.0	24.2	28.0	52.4	1.0	3.2	23.7
Washington.....	156	36	2.0	9.9	1.9	2.9	9.1	16.5	20.1	36.8	(D)	2.3	16.6
California.....	16	1	0.1	0.5	0.1	0.2	0.4	0.9	1.1	2.1	(Z)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2429- --	SPECIAL PRODUCT SAWMILL GOODS, N.E.C., Total.....		(X)	115.8	(X)	82.5
24290 --	Shingles, cooperage stock, and excelsior:					
	Red cedar shingles and shakes:					
24290 03	Shingles.....	1,000 squares.	e1,910.3	20.9	(X)	42.7
24290 05	Remanufactured shingles.....	...do.....	e439.6	4.8		
24290 07	Handsplit shakes.....	...do.....	e908.7	13.1		
24290 09	Shingles and shakes, except red cedar.....	...do.....	(NA)	1.4	(X)	0.8
24290 45	Slack cooperage stock, staves, and heading.....		(X)	4.3	(X)	5.4
	Tight cooperage stock:					
24290 61	Staves.....	Million staves	59.0	29.8	31.8	12.6
24290 71	Heading.....	Million sets..	2.1	8.2	1.5	4.2
24290 81	Shipments of excelsior, baled, bulk.....	Thousand short tons.....	90.0	4.6	106.6	5.3
24290 89	Other excelsior products, including pads and wrappers.....		(X)	8.3	(X)	4.6
24290 00	Shingles, cooperage stock, and excelsior products, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	8.2	(X)	7.2
24290 02	Shingles, cooperage stock and excelsior products, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	12.2		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

eFrom 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2429.--SPECIAL PRODUCT SAWMILLS, N.E.C.					
	Materials, parts, and supplies, total.....		(X)	63.0	(X)	47.2
081111	Cost of stumpage cut (excluding land value) for use in the manufacture of logs, lumber, veneer plywood or other wood products.		(X)	4.9	(X)	3.7
	Logs, bolts and unsliced flitches, total:					
241111	Hardwood.....	Million ft. (log scale)....	(NA)	15.2	466.9	20.1
241112	Softwood.....	...do.....	(NA)	11.8		
970099	All other materials, components, parts, containers, and supplies consumed, n.e.c.....		(X)	17.9	X	13.5
976000	All other materials, components, parts, containers, and supplies consumed, n.s.k.....		(X)	13.2	(X)	9.8

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2429, these small establishments accounted for approximately 7.9 percent of payrolls and 12.8 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

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**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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# 1967 CENSUS OF MANUFACTURES



MC67(P)-24B-1

## INDUSTRY SERIES

### Millwork

SIC Code 2431

**preliminary  
report**

The Millwork Industry includes establishments primarily engaged in manufacturing fabricated millwork. Planing mills primarily engaged in producing millwork are included in this industry, but planing mills primarily producing standard workings or patterns of lumber are classified in industry 2421.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Millwork Industry amounted to \$1,459.9 million, an increase of 14.9 percent compared

with 1963. Value added by manufacture at \$637.2 million in 1967 was 21.6 percent more than value added in 1963. Average employment in the industry was 65.3 thousand employees in 1967 and 1963.

Of the \$1,459.9 million total value of shipments and other receipts of establishments classified as millwork, \$67.8 million were products primary to other industries; and \$126.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2431.--MILLWORK													
1967 Census....	3,348	771	65.3	374.6	54.3	107.4	275.6	637.2	826.9	1,459.9	24.7	215.6	95	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	62.8	342.3	51.1	103.1	249.7	544.4	801.2	1,344.6	30.4	196.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	65.8	345.3	53.9	107.8	253.4	558.2	831.0	1,392.2	25.1	191.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	66.6	234.2	54.1	112.0	247.2	556.5	793.7	1,348.2	17.0	200.2	(NA)	(NA)
1963 Census....	3770	748	65.3	320.8	53.5	106.2	240.7	524.0	749.7	1,270.6	20.9	190.5	95	93
1962 ASM <sup>1</sup> .....	(NA)	(NA)	59.0	276.0	51.0	100.3	200.3	424.8	672.9	1,094.5	16.2	156.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	58.5	266.7	50.4	99.7	194.5	400.9	644.2	1,045.6	12.7	159.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	60.3	270.0	52.1	99.9	196.1	395.2	661.5	1,066.3	11.6	162.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	65.1	290.2	57.0	109.8	214.3	441.9	720.7	1,161.2	*15.1	173.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	3,163	713	62.0	268.0	50.3	98.5	196.9	412.5	639.3	1,049.6	16.9	86.0	92	92

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

The total value of millwork products shipped by all producers in 1967 was \$1,336.8 million of which \$1,269.0 million, or 95 percent, were shipped by plants classified in industry 2431, Millwork, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 93 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



## 1967 CENSUS OF MANUFACTURES

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TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2431.--MILLWORK													
United States, total.....	3,348	771	65.3	374.6	54.3	107.4	275.6	637.2	826.9	1,459.9	24.7	65.3	524.0
New England.....	211	43	2.8	16.4	2.3	4.4	11.4	27.1	32.0	59.0	0.9	3.0	21.7
Massachusetts.....	99	22	1.3	7.7	1.1	1.9	5.3	12.9	16.3	29.1	0.3	1.4	10.9
Connecticut.....	50	7	0.5	3.1	0.4	0.8	2.3	5.2	5.3	10.6	0.1	0.6	4.5
Middle Atlantic.....	492	115	7.5	46.1	6.1	11.9	32.7	80.2	95.2	174.6	3.0	7.4	63.9
New York.....	239	52	3.3	21.3	2.7	5.2	15.3	37.7	42.5	80.0	1.6	3.4	30.7
New Jersey.....	116	19	1.5	9.3	1.2	2.3	6.2	16.3	18.8	35.0	0.4	1.6	13.8
Pennsylvania.....	137	44	2.7	15.5	2.2	4.4	11.2	26.2	33.9	59.7	1.0	2.4	19.4
East North Central....	580	135	15.2	87.6	12.6	25.4	64.0	149.2	178.4	328.0	5.6	14.1	114.6
Ohio.....	103	28	2.4	13.1	2.0	4.1	9.9	27.2	29.4	56.7	1.4	2.2	18.3
Indiana.....	61	18	1.4	7.7	1.1	2.3	5.6	15.4	20.8	36.2	0.5	1.2	10.8
Illinois.....	188	32	2.9	18.2	2.3	4.3	12.1	29.4	33.2	62.8	(D)	3.3	29.0
Michigan.....	106	19	1.6	10.6	1.3	2.6	7.3	18.7	28.5	47.3	(D)	1.8	17.0
Wisconsin.....	122	38	7.0	38.0	5.9	12.1	29.1	58.5	66.5	125.0	2.1	5.6	39.5
West North Central....	218	55	5.8	38.7	4.6	9.5	27.5	66.8	84.1	150.4	3.0	6.4	54.8
Minnesota.....	75	17	2.3	17.1	1.8	3.5	11.7	33.7	44.1	77.0	1.6	2.6	26.4
Iowa.....	25	7	1.8	10.9	1.5	3.2	8.4	18.2	19.0	37.1	1.0	2.1	17.5
Missouri.....	50	15	0.8	5.0	0.6	1.3	3.5	6.8	8.9	15.6	0.1	0.7	5.0
Nebraska.....	22	7	0.4	2.3	0.3	0.7	1.7	3.5	4.8	8.5	0.1	0.4	3.0
South Atlantic.....	466	125	8.5	42.5	6.8	13.8	29.3	70.5	104.2	175.2	2.7	7.7	50.3
Maryland.....	43	22	1.3	7.3	1.0	1.9	4.8	11.2	14.3	25.4	0.6	1.0	8.8
District of Columbia	4	3	0.1	0.9	0.1	0.1	0.4	1.3	1.3	2.7	(D)	0.1	1.0
Virginia.....	54	15	1.8	8.6	1.5	3.0	5.7	13.6	21.8	35.7	0.7	1.5	9.0
Georgia.....	70	13	0.8	3.9	0.6	1.2	2.7	7.7	10.1	17.8	0.3	0.8	5.0
Florida.....	167	40	2.3	12.2	1.8	3.7	8.7	19.9	23.2	43.2	(D)	2.1	14.4
East South Central....	154	44	3.3	16.2	2.8	5.7	11.5	26.9	41.4	68.0	1.3	3.2	19.9
Alabama.....	55	13	0.9	4.3	0.8	1.6	3.0	7.9	15.3	22.9	0.2	1.0	6.5
West South Central....	303	66	5.8	27.2	5.0	9.9	20.7	48.1	73.7	121.1	2.2	6.3	43.3
Arkansas.....	17	4	0.2	0.9	0.2	0.3	0.8	1.6	2.4	3.9	(Z)	0.3	1.7
Louisiana.....	47	9	0.7	3.3	0.6	1.2	2.4	6.3	11.3	17.8	0.3	0.8	4.9
Oklahoma.....	33	5	0.4	2.2	0.4	0.8	1.7	2.4	3.1	5.5	0.1	0.4	2.2
Texas.....	206	48	4.4	20.7	3.8	7.6	15.9	37.8	56.9	94.0	1.8	4.8	34.5
Mountain.....	167	28	2.5	13.1	2.2	4.3	10.5	20.2	30.8	50.6	0.9	2.4	18.9
Colorado.....	31	1	0.1	0.6	0.1	0.2	0.5	0.9	1.0	1.9	(Z)	0.3	1.8
Utah.....	26	5	0.3	1.2	0.2	0.5	1.0	1.7	2.3	3.9	(Z)	(D)	(D)
Nevada.....	10	3	0.1	0.7	0.1	0.1	0.5	1.0	1.6	2.6	(D)	(D)	(D)
Pacific.....	756	160	13.9	86.9	11.9	22.5	68.0	148.0	186.9	333.4	5.0	15.0	136.6
Oregon.....	93	32	3.7	20.5	3.3	6.1	16.8	39.8	45.3	84.7	2.0	2.9	23.4
California.....	516	93	7.0	47.0	5.9	11.4	35.8	77.7	107.7	184.7	1.7	8.9	88.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2431- --	MILLWORK, TOTAL.....	.....	(X)	1,336.8	(X)	1,141.9
24311 --	Window units, wood.....	.....	(X)	148.7	(X)	119.1
24311 33	Conventional-double-hung.....	1,000.....	<sup>e</sup> 3,445	61.5	2,928	45.5
24311 36	Awnings and casement.....	...do.....	3,271	61.7	3,789	65.6
24311 39	All other wood window units.....	...do.....	638	18.5		
24311 00	Window units, wood, n.s.k.....	.....	(X)	7.0	(X)	8.0
24312 --	Wood window sash, including combination screen and storm sash, excluding window screens and window units.....	.....	(X)	39.8	(X)	40.4
	Sash, wood other than storm sash, (double-hung window counted as two sash; including cellar and barn sash) sash shipped in window units are reported under window units:					
24312 11	Knock-down.....	1,000.....	<sup>e</sup> 3,162	8.6	2,751	5.5
24312 13	Open.....	...do.....	<sup>e</sup> 2,508	6.7	4,183	7.4
24312 15	Glazed.....	...do.....	<sup>e</sup> 3,691	17.0	6,512	19.4
24312 65	Storm sash, wood including combination screen and storm sash..	...do.....	<sup>e</sup> 636	4.3	749	2.8
24312 00	Wood window sash, including combination screen and storm sash, excluding window screens and window units, n.s.k.....	.....	(X)	3.2	(X)	5.3
24313 11	Wood window and door frames (including cellar and barn window and door frames and door frames shipped in door units. Excluding window frames shipped in window units).....	1,000.....	<sup>e</sup> 10.4	56.6	14.0	68.5
24314 --	Doors, wood, interior and exterior (including those shipped with glazed sections and doors shipped in door units).....	.....	(X)	285.4	(X)	254.9
	Panel-type (including french doors):					
24314 11	Douglas fir.....	1,000.....	<sup>e</sup> 2,754	34.9	2,269	19.7
24314 13	Western pines.....	...do.....	1,520	26.4	1,634	18.5
24314 19	Other species.....	...do.....	<sup>e</sup> 815	9.1	656	7.7
	Flush type:					
	Hollow core:					
24314 31	Soft wood faces.....	...do.....	<sup>e</sup> 2,491	15.0	27,000	146.1
24314 33	Hardwood faces, including lauan.....	...do.....	19,884	106.8		
24314 39	Other faces, including hardboard.....	...do.....	(NA)	8.1		
	Solid core:					
24314 43	Hardwood faces, including lauan.....	...do.....	3,819	59.2	2,901	44.8
24314 49	Softwood and other faces, including hardboard.....	...do.....	<sup>e</sup> 126	2.6		
24314 00	Wood doors, general construction, n.s.k.....	.....	(X)	23.3	(X)	18.2
24315 --	Other wood doors, including garage, screen, storm, and combination screen and storm and louvre.....	.....	(X)	116.0	(X)	127.9
24315 51	Combination screen and storm doors, wood.....	1,000.....	<sup>e</sup> 804	10.2	534	6.9
24315 61	Garage doors, wood.....	1,000 openings	<sup>e</sup> 1,087	57.2	1,170	59.9
24315 71	Screen doors, wood.....	1,000.....	<sup>e</sup> 1,562	8.9	1,320	6.9
24315 81	Summer or louvre doors.....	...do.....	2,047	15.4	(X)	46.0
24315 88	Other wood doors (including storm, cabinet, toilet, grain, etc.)	.....	(X)	22.4		
24315 00	Other wood doors, n.s.k.....	.....	(X)	1.9	(X)	8.2
24316 --	Finished wood mouldings (including window and door trim).....	million.....	(X)	195.8	(X)	166.6
24316 11	Softwood.....	...do.....	<sup>e</sup> 592	162.5	533	124.9
24316 51	Hardwood, including lauan.....	...do.....	<sup>e</sup> 77	26.7	105	31.3
24316 00	Finished wood mouldings, n.s.k.....	.....	(X)	6.6	(X)	10.4

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
24317 --	Cabinet work, to be built in, total.....	.....	(X)	141.2	(X)	149.6
24317 13	Cabinets made on custom basis--such as kitchen cabinets, base units, broom closets, vegetable bins, etc., made on a custom basis to individual specifications.....	.....	(X)	131.3	}	149.6
24317 15	Cabinet work such as mantels, china cases, etc., made on a custom basis.....	.....	(X)	9.9		
24318 --	Other millwork products including window screens and architectural millwork.....	.....	(X)	108.0	(X)	89.4
	Stairwork (including treads, risers, balusters, brackets, crooks, newels, rails, etc.):					
24318 21	Softwood.....	.....	(X)	19.0	(X)	5.9
24318 25	Hardwood.....	.....	(X)	11.1	(X)	12.4
24318 33	Wood shutters and blinds, exterior and interior.....	.....	(X)	20.9	}	12.8
24318 35	Exterior millwork (including porch columns, porch rails, newels, trellises, and entrances).....	.....	(X)	10.4		
24318 79	Other architectural millwork products, including wood frame window screens.....	.....	(X)	34.6	(X)	42.9
24318 00	Other millwork products, n.s.k.....	.....	(X)	12.0	(X)	15.4
24310 00	Millwork products, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	169.3	}	125.4
24310 02	Millwork products, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	76.0		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>a</sup>From 10 to 30 percent of this figure was estimated.

n.s.k. Not specified by kind.

(X) Not applicable.

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2431.--MILLWORK					
	Materials, containers, and supplies, total.....		(X)	723.6	(X)	643.9
	Logs, bolts, and unsliced flitches, total.....	Million ft. log scale.....	(NA)	9.4	51.6	3.4
241111	Hardwood.....	...do.....	(NA)	2.0	51.6	3.4
241112	Softwood.....	...do.....	(NA)	7.4		
	Rough lumber:					
242110	Hardwood.....	Million bd. ft...	<sup>e</sup> 198.0	40.0	136.8	26.1
242118	Softwood.....	...do.....	578.2	78.1	549.6	75.3
	Dressed lumber:					
242121	Hardwood.....	...do.....	(NA)	16.8	45.2	7.8
242128	Softwood.....	...do.....	951.7	127.5	1,075.2	126.8
243250	Hardwood veneer.....	Million sq. ft. surf. meas.....	487.1	29.5	381.0	16.2
243260	Softwood veneer.....	Million sq. ft. 1" basis.....	(NA)	2.1	99.4	8.2
	Hardwood plywood-other than container type:					
243211	Veneer core.....	Million sq. ft. surf. meas.....	<sup>e</sup> 544.2	52.1	454.2	47.4
243213	Board core, including lumber, particleboard and hardboard core.	... do.....	<sup>e</sup> 19.9	5.6	23.1	8.3
243203	Softwood plywood.....	Million sq. ft. 3/8" basis.....	<sup>e</sup> 123.6	14.7	154.7	15.7
342940	Builders' hardware, including doors, locks, locksets, lock trim, miscellaneous sash screen, and shelf hardware; hinges and butts; hangers, tracks and related items; cabinet hardware, and all other builders' hardware.....		(X)	37.7	(X)	26.2
249930	Particle board.....	million sq. ft. 3/4" basis.....	<sup>e</sup> 41.1	5.4	(X)	124.0
249960	Hard pressed wood fiberboard.....	Million sq. ft. 1/8" basis.....	<sup>e</sup> 140.9	7.2		
265011	Paperboard boxes and containers, including folding, corrugated, and setup boxes.....		(X)	3.6		
970099	All other materials and components, parts, containers, and supplies consumed.....			145.3	(X)	158.4
971000	All other materials, n.s.k.....		(X)	148.7		

This item represent the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

<sup>e</sup>From 10 to 30 percent of this figure is estimated.

(NA) Not available.

n.s.k. Not specified by kind.

(X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2431, these small establishments accounted for approximately 5.3 percent of payrolls and 4.5 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES

MC67(P)-24B-2



INDUSTRY SERIES

**preliminary  
report**

## Veneer and plywood

SIC Code 2432

The Veneer and Plywood Industry includes establishments engaged primarily in producing commercial veneer, either face or technical, and those primarily engaged in manufacturing commercial plywood, including nonwood backed or faced veneer and nonwood faced plywood, from veneer produced in the same establishment or from purchased veneer. Establishments primarily engaged in the production of veneer which is used in the same establishment for the manufacture of end products such as fruit and vegetable baskets are classified in industry 2443, and wood boxes in industries 2441 and 2442.

the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Veneer and Plywood Industry amounted to \$1,669.2 million, an increase of 25 percent compared with 1963. Value added by manufacture at \$671.7 million in 1967 was 20 percent more than value added in 1963. Average employment in the industry showed an increase of 9 percent from 1963 to a total of 71.9 thousand employees in 1967.

The classification of establishments for which data are tabulated in this report is based upon

Of the \$1,669.2 million total value of shipments and other receipts of establishments classified

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2432.--VENEER AND PLYWOOD													
1967 Census....	666	514	71.9	414.8	65.4	136.5	356.5	671.7	994.5	1,669.2	71.1	189.4	90	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	77.0	432.1	69.8	148.9	370.8	695.7	1,021.1	1,699.9	68.6	212.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	71.6	384.6	65.2	137.7	330.5	628.3	947.1	1,583.3	69.1	179.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	68.8	365.7	62.8	131.9	315.9	618.1	894.9	1,497.4	47.3	165.1	(NA)	(NA)
1963 Census....	641	503	66.2	324.7	60.5	124.9	281.3	559.2	788.1	1,339.6	41.9	144.4	92	94
1962 ASM <sup>1</sup> .....	(NA)	(NA)	68.0	311.7	60.6	126.2	266.5	492.0	779.5	1,269.2	24.3	144.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	63.9	280.0	56.9	116.4	238.1	438.4	692.6	1,117.2	*18.6	132.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	65.5	276.1	58.1	117.3	235.4	408.3	668.1	1,067.0	31.9	144.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	67.2	292.2	60.2	126.3	251.8	490.5	685.8	1,166.2	38.3	129.7	(NA)	(NA)
1958 Census <sup>2</sup> ...	588	450	59.3	240.8	54.1	108.4	207.6	390.1	503.5	884.1	25.0	112.5	92	95

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director

as veneer and plywood plants, \$156 million were products primary to other industries; and \$34 million were receipts for miscellaneous activities. The industry shipments of primary products represented 90 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

The total value of veneer and plywood products shipped by all producers in 1967 was \$1,558.6 million of which \$1,479 million, or 95 percent,

were shipped by plants classified in industry 2432, Veneer and Plywood, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 94 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2432, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-24F, Hardwood Plywood and MA-24H, Softwood Plywood



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2432.--VENEER AND PLYWOOD												
United States, total.....	666	514	71.9	414.8	65.4	136.5	356.5	671.7	994.5	1,669.2	71.1	66.2	559.2
Northeast.....	39	22	3.1	15.5	2.8	5.8	12.2	24.7	33.0	57.5	1.9	1.7	12.4
Maine.....	4	3	0.6	2.9	0.5	1.3	2.5	4.2	4.9	8.6	0.6	(D)	(D)
New York.....	12	6	0.7	3.6	0.6	1.1	2.4	7.6	10.1	17.5	(D)	0.7	5.6
East North Central....	67	52	6.3	34.2	5.5	11.9	25.8	62.1	75.2	139.0	2.9	6.7	56.3
Indiana.....	31	25	3.1	18.4	2.6	5.9	13.1	34.8	40.4	76.8	(D)	3.1	30.7
Michigan.....	8	5	0.7	3.8	0.6	1.2	2.8	6.0	7.9	14.3	(D)	0.5	3.7
Wisconsin.....	20	17	2.2	10.0	2.0	4.2	8.3	17.0	22.0	38.5	0.7	2.7	17.0
West North Central....	13	8	0.5	2.1	0.5	0.9	1.8	4.3	3.4	7.7	0.1	0.6	4.1
Minnesota.....	7	3	0.2	0.9	0.2	0.4	0.8	2.6	1.1	3.7	(D)	0.2	0.7
South Atlantic.....	187	149	13.6	55.4	12.3	25.3	45.1	90.3	137.0	226.0	23.3	12.5	68.5
Virginia.....	28	23	2.2	9.4	2.0	4.2	7.7	17.0	25.4	41.4	3.6	(D)	(D)
North Carolina.....	82	68	5.2	21.2	4.8	9.9	17.6	32.5	50.6	83.1	7.5	4.6	24.9
South Carolina.....	32	23	2.6	9.6	2.3	4.4	7.6	17.5	29.8	47.6	(D)	3.1	17.5
Georgia.....	25	18	2.1	8.7	1.9	4.2	7.1	13.8	18.3	31.7	5.9	2.2	11.4
Florida.....	11	9	0.8	3.2	0.7	1.5	2.7	4.6	6.1	10.6	(D)	0.7	2.8
East South Central....	61	47	4.2	18.0	3.9	8.0	15.1	32.8	50.8	83.3	6.4	3.6	21.1
Kentucky.....	7	5	0.4	2.1	0.4	0.7	1.5	4.7	5.3	9.8	0.2	(D)	(D)
Tennessee.....	14	12	1.0	4.5	0.9	1.9	3.6	9.1	22.6	31.9	0.3	0.7	4.8
Alabama.....	24	16	1.2	4.7	1.1	2.2	4.1	6.8	8.8	15.6	0.4	1.3	7.0
Mississippi.....	16	14	1.6	6.8	1.5	3.2	5.9	12.2	14.1	26.0	5.5	(D)	(D)
West South Central....	34	29	4.7	21.8	4.3	9.3	18.3	40.6	51.5	92.2	2.1	1.2	6.3
Texas.....	10	6	1.1	5.1	1.0	2.4	4.2	9.0	11.1	20.1	0.4	0.4	1.9
Mountain.....	14	12	2.0	13.3	1.8	4.1	12.0	21.1	33.6	54.7	2.6	0.8	6.2
Pacific.....	251	195	37.6	254.6	34.4	71.1	226.2	395.8	610.2	1,008.8	31.8	37.8	374.3
Washington.....	56	46	8.4	57.4	7.8	15.8	51.9	86.0	143.3	228.8	6.0	8.6	75.8
Oregon.....	152	126	25.3	171.1	23.1	48.1	151.8	265.8	399.5	668.8	22.5	24.1	250.0
California.....	43	23	3.9	26.1	3.5	7.2	22.5	44.0	67.4	111.3	3.2	5.0	48.6

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes	Total shipments, including interplant transfers		Production for all purposes	Total shipments, including interplant transfers	
				Quantity	Value		Quantity	Value
			(quantity)		(million dollars)	(quantity)		(million dollars)
2432- --	VENEER AND PLYWOOD, TOTAL.....		(X)	(X)	1,558.6	(X)	(X)	1,275.8
24321 --	Hardwood plywood:							
24321 00	Total as reported in the census of manufactures....	Million sq. ft. surf. meas.....	(NA)	1,724.7	331.5	1,711.6	1,661.8	292.8
	Total as reported in Current Industrial Reports							
	M24F Hardwood Plywood: Production and Shipments <sup>1</sup> .....	...do.....	1,972.8	1,663.1	324.9	1,878.6	1,525.9	295.7
	Veneer core (excluding container and packaging type).....	...do.....	1,671.4	1,521.1	(NA)	1,587.9	1,391.8	250.2
24321 10	Technical type and type I, waterproof.....	...do.....	41.2	19.0	(NA)	39.0	26.0	7.4
24321 20	Type II, moisture resistant.....	...do.....	1,559.2	1,441.6	(NA)	1,398.1	1,273.0	226.0
24321 30	Type III, dry bond.....	...do.....	71.0	60.5	(NA)	150.9	92.9	16.7
24321 50	Other core (excluding container and packaging type).....	...do.....	197.6	83.3	(NA)	166.9	68.0	41.3
24321 60	Container and packaging type.....	...do.....	103.8	58.7	(NA)	123.8	66.1	4.2
24322 --	Softwood plywood, interior type:							
24322 00	Total as reported in the census of manufactures....	Million sq. ft. 3/8" basis.....	(NA)	6,770.9	380.0	7,129.8	7,106.8	415.3
	Total as reported in Current Industrial Reports							
	MA24H, Softwood Plywood: Production and Shipments <sup>1</sup> .....	...do.....	6,836.7	6,919.1	387.4	7,069.5	7,080.8	417.2
24323 --	Softwood plywood, exterior type:							
24323 00	Total as reported in the census of manufactures....	...do.....	(NA)	6,142.2	398.4	3,120.9	3,153.8	225.2
	Total as reported in Current Industrial Reports							
	MA24H, Softwood Plywood: Production and Shipments <sup>1</sup> .....	...do.....	6,002.8	5,995.9	389.7	3,305.2	3,235.3	236.9
24324 --	Prefinished hardwood plywood made from purchased plywood and other plywood type products, except particleboard, total.....		(X)	(X)	161.1	(X)	(X)	81.6
24324 00	Total as reported in census of manufactures.....	Million sq. ft. surf. meas.....	(X)	923.0	105.2	(X)	276.4	38.1
	Total as reported in Current Industrial Reports							
	M24F, Hardwood Plywood: Production and Shipments.....	...do.....	(X)	( <sup>2</sup> )	( <sup>2</sup> )	(X)	274.2	37.6
	Other plywood-type products, except particleboard, including two-ply veneer, single-ply veneer, backed and/or faced, curved plywood and other plywood-type products:							
24324 21	Hardwood base.....	...do.....	(X)	343.6	31.8	(X)	304.7	26.0
24324 23	Softwood base.....	...do.....	(X)	227.1	24.2	(X)	166.2	15.6
24324 00	Prefinished hardwood plywood made from purchased plywood and other plywood-type products, except particleboard, n.s.k.....		(X)	(X)	-	(X)	(X)	1.9
24325 --	Hardwood veneer, total.....		(X)	(X)	126.0	(NA)	(NA)	122.2
24325 11	Special and face type.....	Million sq. ft. surf. meas.....						
24325 31	Commercial and utility types.....	...do.....	3,325.4	2,386.5	91.7	2,855.0	1,938.4	74.9
24325 51	Container type.....	...do.....	1,911.3	987.0	24.7	2,616.9	1,641.2	34.0
24325 71	Flat type.....	...do.....	<sup>3</sup> 521.3	<sup>3</sup> 376.8	<sup>3</sup> 6.5	626.6	471.8	8.1
24325 00	Hardwood veneer, n.s.k.....	...do.....	(X)	(X)	3.1	166.3	55.0	1.1
24326 --	Softwood veneer, total.....					(X)	(X)	4.2
		Million sq. ft. 1" basis.....						
24326 11	Plywood veneer.....	...do.....	4,663.8	1,492.2	135.3	3,879.9	1,478.6	129.2
24326 31	Container veneer.....	...do.....	4,630.2	1,458.7	131.7	3,827.7	1,447.7	126.0
			33.6	33.5	3.6	52.1	31.0	3.2

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963-Con.

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
2432- --	VENEER AND PLYWOOD--Continued							
24320 00	Veneer and plywood, n.s.k., (Represents principally establishments with 10 employees or more in 1967. See Note.).....		(X)	(X)	22.7	(X)	(X)	9.5
24320 02	Veneer and plywood, n.s.k., (Represents principally establishments with fewer than 10 employees in 1967. See Note.).....		(X)	(X)	3.6	(X)	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Similar information is available for this series in the intercensal years.

<sup>2</sup>Shipments of prefinished hardwood plywood made from purchased plywood will be available in the final report MC67(2)-24B.

<sup>3</sup>Combined to avoid disclosing figures for individual companies.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Materials	Unit of measure	1967			1963		
			Quantity	Delivered cost (million dollars)	Consumption of material produced in this establishment (quantity)	Quantity	Delivered cost (million dollars)	Consumption of material produced in this establishment (quantity)
	INDUSTRY 2432.--VENEER AND PLYWOOD							
	Materials, parts, and supplies, total.....		(X)	931.2	(X)	(X)	730.6	(X)
081111	Cost of stumpage cut (timber, excluding land) for use in same establishment in the manufacture of logs, lumber, veneer, plywood, or other wood products.....		(X)	97.1	(X)	(X)	45.5	(X)
	Logs, bolts, and unsliced flitches:							
241111	Hardwood.....	Million ft. log-scale....	658.2	75.4	(NA)	4,089.8	265.2	1,025.3
241112	Softwood.....	do.....	3,496.7	202.5	(NA)			
	Lumber, rough and dressed:							
242101	Hardwood.....	Million bd. ft.	70.9	7.4	(NA)	64.0	7.4	8.8
242103	Softwood.....	do.....	43.2	4.9	(NA)	45.7	3.5	34.7
243250	Hardwood veneer.....	Million sq. ft. surf. meas....	3,631.0	143.5	(NA)	2,708.7	104.5	(NA)
243260	Softwood veneer.....	Million sq. ft. 1" basis....	2,049.6	157.1	(NA)	1,709.3	134.4	2,438.3
243210	Hardwood plywood.....	Million sq. ft. surf. meas....	773.3	60.0	(X)	291.4	28.9	(X)
243203	Softwood plywood.....	Million sq. ft. 3/8" basis...	146.1	11.5	(X)	90.4	8.0	(X)
289111	Glues and adhesives (soybean, casein, blood, albumen, synthetic resin adhesives, etc.).....	Million lbs....	678.3	38.9	(X)	(NA)	28.1	(X)
282140	Thermosetting resins (including melamines phenolics, polyesters, ureas, etc., in all forms, including granular, pellet, powder, liquid, sheet, etc.) excluding synthetic resin adhesives.....	Million lbs. dry basis....	239.1	12.8	(X)	(NA)	12.8	(X)
249930	Particleboard.....	Million sq. ft. 3/4" basis....	44.1	5.8	(X)	(X)	77.3	(X)
970099	All other materials and components, parts, containers, and supplies consumed, n.e.c.....		(X)	98.3	(X)	(X)		
971000	All other materials and components, parts, containers, and supplies consumed, n.s.k. <sup>1</sup> .....		(X)	16.0	(X)	(X)	15.0	(X)

(NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2432, these small establishments accounted for approximately 0.2 percent of payrolls and 0.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-24B-3

## INDUSTRY SERIES

**preliminary  
report**

### Prefabricated wood structures SIC Code 2433

The Prefabricated Wooden Buildings and Structural Members Industry includes establishments primarily engaged in manufacturing pre-fabricated wooden buildings, sections, and panels; or in producing laminated or fabricated trusses, arches, and other structural members of lumber. Prefabrication on the site of construction is not included in this industry.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Prefabricated Wood Structures Industry amounted to \$494.0 million, an increase of 22.5

percent compared with 1963. Value added by manufacture at \$190.9 million in 1967 was 21.9 percent more than value added in 1963. Average employment in the industry showed an increase of 3.2 percent from 1963 to a total of 16.3 thousand employees in 1967.

Of the \$494 million total value of shipments and other receipts of establishments classified in the Prefabricated Wood Structures Industry, \$19.0 million were products primary to other industries; and \$46.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 96 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2433.--PREFABRICATED WOOD STRUCTURES													
1967 Census....	552	215	16.3	102.4	11.9	23.9	61.3	190.9	300.8	494.0	9.6	57.1	96	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	16.8	95.2	12.1	25.4	57.5	189.9	285.5	471.7	*7.2	51.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	16.8	94.5	11.9	24.1	56.4	185.1	296.1	480.9	9.8	52.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	16.3	83.0	11.5	23.1	50.3	163.1	270.7	433.0	6.2	49.5	(NA)	(NA)
1963 Census....	559	203	15.8	81.1	11.6	22.5	50.2	156.6	249.5	403.3	7.7	52.6	98	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	13.1	69.1	9.3	18.9	39.8	120.8	218.7	339.3	4.1	39.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	14.0	72.4	9.9	19.6	41.6	126.4	211.6	338.3	6.7	42.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	15.0	69.7	9.8	18.6	40.6	129.4	213.9	344.9	7.9	40.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	15.1	72.6	11.0	21.5	45.2	128.7	240.7	368.9	6.5	43.8	(NA)	(NA)
1958 Census <sup>2</sup> ....	374	150	13.5	62.0	9.9	19.3	38.3	122.3	201.4	322.3	4.4	42.0	98	98

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of prefabricated wood structures shipped by all producers in 1967 was \$438.1 million of which \$428.0 million, or 98 percent, were shipped by plants classified in industry 2433, Prefabricated Wood Structures, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2433.--PREFABRICATED WOOD STRUCTURES													
United States, total.....	552	215	16.3	102.4	11.9	23.9	61.3	190.9	300.8	494.0	9.6	15.8	156.6
New England.....	34	11	0.7	5.5	0.5	1.1	3.4	9.1	16.1	25.4	0.3	0.6	5.3
Middle Atlantic.....	60	23	1.7	10.6	1.3	2.7	6.3	18.4	26.4	44.7	1.3	1.7	24.8
New York.....	25	9	0.6	4.1	0.4	0.8	2.2	7.4	9.9	17.4	(D)	0.7	7.9
East North Central....	142	63	5.4	34.8	3.8	7.4	19.9	63.5	104.4	167.7	2.7	5.0	49.5
Indiana.....	25	13	1.5	9.9	1.0	1.8	4.7	16.5	28.8	44.9	(D)	1.7	17.9
Michigan.....	40	15	1.0	6.3	0.7	1.4	4.0	12.8	16.0	28.8	(D)	0.6	5.9
Wisconsin.....	19	5	0.7	4.0	0.5	1.1	2.8	7.2	11.4	18.4	0.4	0.7	5.4
West North Central....	51	22	1.4	9.0	0.9	1.8	5.1	20.0	30.4	50.6	0.7	1.0	12.7
South Atlantic.....	90	37	2.6	13.1	1.9	3.9	7.8	24.2	39.5	63.7	1.3	2.7	20.5
Virginia.....	11	6	0.7	3.9	0.5	1.2	2.2	7.6	13.9	21.4	0.5	(D)	(D)
Georgia.....	15	5	0.4	2.2	0.3	0.6	1.1	4.5	7.6	12.1	0.1	0.5	4.1
Florida.....	38	16	0.6	3.5	0.5	1.0	2.4	6.6	8.6	15.1	(D)	0.6	3.8
East South Central....	21	8	0.6	2.9	0.5	1.1	2.1	7.5	12.1	19.6	0.2	1.0	9.4
Alabama.....	13	5	0.5	2.0	0.4	0.8	1.5	5.6	8.6	14.2	0.1	0.7	7.0
West South Central....	37	11	0.9	5.1	0.7	1.4	2.9	8.0	14.8	22.8	0.5	1.2	8.3
Oklahoma.....	7	1	0.1	0.4	0.1	0.1	0.2	0.3	0.8	1.1	(Z)	0.1	0.6
Texas.....	18	4	0.4	2.5	0.3	0.6	1.3	4.5	8.4	12.9	0.2	0.6	4.6
Mountain.....	34	12	0.5	2.9	0.4	0.7	2.1	5.5	9.4	14.8	0.2	0.5	3.5
Utah.....	6	4	0.1	0.8	0.1	0.2	0.7	1.6	2.4	4.0	(Z)	(D)	(D)
Pacific.....	53	28	2.5	18.5	1.9	3.9	11.8	34.8	47.6	84.6	2.3	2.2	22.6
Oregon.....	15	6	0.8	5.7	0.6	1.3	4.0	10.3	13.6	25.0	0.4	0.9	9.3
California.....	37	10	1.1	8.6	0.8	1.6	5.2	15.5	20.6	37.5	1.5	0.7	7.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2433 --	PREFABRICATED WOOD STRUCTURES, TOTAL.....	.....	(X)	438.1	(X)	379.8
24331 --	Fabricated structural wood members and wood laminates.....	.....	(X)	65.1	(X)	(NA)
24331 31	Glued laminated lumber.....	Million bd.ft.	<sup>e</sup> 147.8	39.3	85.7	27.3
24331 33	Sawn lumber.....	...do.....	57.9	5.9	25.0	2.3
24331 35	Combination of glued laminated and sawn lumber.....	...do.....	68.1	17.8	47.1	12.7
24331 00	Fabricated structural wood members and wood laminates, n.s.k....	...do.....	(X)	2.1	(X)	(NA)
24332 --	Ready-cut and prefabricated wood buildings, including sections and roof trusses.....	.....	(X)	339.3	(X)	(NA)
	Ready-cut and prefabricated wood buildings, including portable buildings sold as complete units:					
24332 31	Dwellings.....	1,000 units...	<sup>e</sup> 56.2	255.8	60.5	246.1
24332 41	Other buildings including garages, farm buildings, etc.....	...do.....	<sup>e</sup> 13.4	26.8	(NA)	11.3
24332 51	Roof trusses made of saw lumber; light construction.....	...do.....	<sup>e</sup> 2,956.8	41.6		
24332 71	Wood component parts not sold as complete units; including parts, sections, panels, walls, partitions, floors, ceilings, etc. For ready-cut and prefabricated buildings, all types (excluding roof trusses).....	.....	(X)	14.0	(X)	45.7
24332 00	Ready-cut and prefabricated wood buildings, including sections and roof trusses, n.s.k.....	.....	(X)	1.1	(X)	(NA)
24330 00	Prefabricated wood structures, n.s.k.(For companies with 10 or more employees. See Note.).....	.....	(X)	24.4		
24330 02	Prefabricated wood structures, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	9.3	(X)	34.3

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2433.--PREFABRICATED WOOD STRUCTURES					
	Materials, parts, and supplies, total.....	.....	(X)	251.7	(X)	212.4
	Rough lumber:					
242110	Hardwood.....	Million bd. ft...	<sup>e</sup> 32.3	3.6	8.3	0.9
242118	Softwood.....	...do.....	<sup>e</sup> 134.3	13.5	98.6	9.7
	Dressed lumber:					
242121	Hardwood.....	Million bd. ft...	34.8	4.4	30.6	4.3
242128	Softwood.....	...do.....	742.8	79.5	633.1	63.6
243210	Hardwood plywood.....	Million sq. ft.				
		surf. meas.....	(NA)	1.8	15.1	2.2
243203	Softwood plywood.....	Million sq. ft.				
		3/8" basis.....	<sup>e</sup> 226.5	20.8	176.8	14.6
282140	Thermosetting resins (melamines, phenolics, ureas, etc., on dry basis including granules, pellets, powder, liquid, sheets, etc..	Million lbs.....	<sup>e</sup> 8.7	3.0	(S)	1.1
342940	Builders' hardware; including door locks, lock sets, lock trim, miscellaneous sash, screen and shelf hardware; hinges and butts; hangers, tracks and related items; cabinet hardware and all other builders' hardware.....	.....	(X)	8.4	(X)	13.9
970099	All other materials and components, parts, containers and supplies consumed, n.e.c.....	.....	(X)	88.5	(X)	61.1
971000	All other materials, n.s.k.....	.....	(X)	28.1	(X)	40.3

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2433, these small establishments accounted for approximately 1.8 percent of payrolls and 1.9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

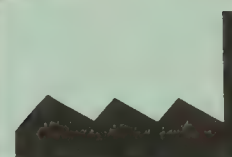
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Nailed wooden boxes and shook

SIC Code 2441

preliminary  
report

The Nailed and Lock Corner Wooden Boxes and Shook Industry includes establishments primarily engaged in manufacturing nailed and lock corner wooden boxes (lumber or plywood), which also may produce shook for nailed and lock corner boxes.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Nailed Wooden Boxes and Shook Industry amounted to \$278.2 million, an increase of 35 percent compared with 1963. Value added

by manufacture at \$125.3 million in 1967 was 47 percent more than value added in 1963. Average employment in the industry showed an increase of 11 percent from 1963 to a total of 16.1 thousand employees in 1967.

Of the \$278.2 million total value of shipments and other receipts of establishments classified as nailed wooden boxes and shook, \$26.7 million were products primary to other industries; and \$19.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 85 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See appendix, Explanation of Terms )

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2441, --NAILED WOODEN BOXES AND SHOOK														
1967 Census....	597	183	16.1	71.8	14.6	28.3	57.7	125.3	153.7	278.2	5.1	32.7	87	89
1966 ASM <sup>1</sup> .....	(NA)	(NA)	16.4	71.3	14.5	29.2	57.5	112.7	156.6	268.2	*11.2	27.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	15.2	61.0	13.6	27.0	49.5	95.6	135.7	231.8	7.8	27.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	14.1	57.8	12.6	25.6	46.1	84.0	123.3	205.6	3.8	28.7	(NA)	(NA)
1963 Census....	663	183	14.5	55.9	12.9	26.3	45.9	85.0	121.2	206.0	6.0	25.3	85	83
1962 ASM <sup>1</sup> .....	(NA)	(NA)	16.9	63.3	14.7	31.3	50.2	100.0	127.6	229.4	*4.8	29.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	16.9	59.3	14.6	30.0	46.4	93.0	117.4	210.6	*4.1	31.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	17.9	62.2	15.6	31.5	48.5	95.0	124.2	219.4	*5.2	32.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	19.5	62.2	16.9	34.4	50.5	97.1	127.1	227.2	*3.7	30.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	874	247	19.0	62.4	16.7	32.2	50.1	92.3	118.6	211.4	3.3	33.5	86	80

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

The total value of nailed wooden boxes and shook products shipped by all producers in 1967 was \$252.4 million of which \$229.5 million, or 89 percent, were shipped by plants classified in industry 2441, Nailed Wooden Boxes and Shook, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 83 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2441.--NAILED WOODEN BOXES AND SHOOK												
United States, total.....	597	183	16.1	71.8	14.6	28.3	57.7	125.3	153.7	278.2	5.1	14.5	85.0
New England.....	62	24	1.5	6.9	1.4	2.8	5.4	11.0	9.8	20.8	0.4	1.5	8.5
Maine.....	7	2	0.2	0.7	0.2	0.3	0.6	0.9	0.9	1.8	(D)	0.2	0.9
Middle Atlantic.....	102	22	1.6	7.7	1.4	2.8	6.1	14.2	12.4	26.6	0.3	1.7	12.0
New Jersey.....	28	5	0.3	1.5	0.2	0.5	1.1	2.7	2.1	4.7	(D)	0.3	2.6
East North Central....	124	30	1.9	8.2	1.7	3.2	6.4	13.7	14.1	27.8	0.6	(D)	(D)
Ohio.....	27	6	0.4	1.9	0.3	0.7	1.4	3.2	3.2	6.5	(D)	0.4	2.9
Indiana.....	13	4	0.2	1.0	0.2	0.4	0.8	1.8	1.6	3.4	0.1	(D)	(D)
Illinois.....	26	5	0.3	1.4	0.3	0.5	1.1	2.2	3.3	5.4	(D)	0.4	2.1
Michigan.....	31	5	0.3	1.2	0.3	0.6	0.9	2.1	2.0	4.0	0.1	0.3	1.6
Wisconsin.....	27	9	0.6	2.7	0.5	1.1	2.2	4.4	4.0	8.4	0.2	0.7	3.3
West North Central....	23	6	0.7	2.9	0.7	1.3	2.5	7.1	7.9	14.5	0.1	(D)	(D)
South Atlantic.....	70	32	2.9	9.8	2.6	4.9	8.1	16.9	16.6	33.5	0.8	2.5	11.0
Maryland.....	7	2	0.1	0.3	0.1	0.2	0.3	0.5	0.5	1.0	(D)	0.2	0.7
Virginia.....	18	10	0.9	2.8	0.8	1.4	2.2	5.0	4.3	9.3	(D)	0.7	2.9
South Carolina.....	6	3	0.4	1.2	0.3	0.6	1.0	2.3	2.1	4.3	0.1	(D)	(D)
East South Central....	33	14	2.0	8.2	1.8	3.6	6.2	16.3	15.0	31.4	0.5	1.5	7.8
Tennessee.....	12	5	0.7	2.7	0.7	1.3	2.1	5.1	5.8	10.9	0.1	0.7	3.8
West South Central....	34	15	1.4	5.4	1.4	2.7	4.7	10.0	10.0	19.4	0.3	1.0	6.0
Texas.....	19	7	0.5	1.9	0.5	1.0	1.7	4.0	5.6	9.1	0.1	(D)	(D)
West.....	150	41	4.1	22.7	3.7	6.9	18.3	36.1	67.8	104.2	2.1	3.5	24.6
California.....	107	29	2.8	16.9	2.5	4.9	13.6	26.4	57.1	83.7	1.5	2.4	18.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2441- --	NAILED WOODEN BOXES AND SHOOK, TOTAL.....		(X)	252.4	(X)	189.4
24411 --	Nailed or lock-corner wooden boxes.....		(X)	110.2	(X)	83.8
	Nailed or lock-corner boxes made from lumber:					
24411 21	For fruits and vegetables.....	Mil. bd. ft...	<sup>e</sup> 47.6	7.0	100.6	13.6
24411 31	For milk bottles and cartons.....	Mil. boxes...	(NA)	3.5	3.3	6.4
24411 41	For soft drink bottles.....	Mil. bd. ft...	53.6	12.6	232.3	39.4
24411 51	For industrial and other uses.....	...do.....	<sup>e</sup> 286.7	59.4		
	Nailed or lock-corner boxes made from veneer and plywood:					
24411 65	For fruits, vegetables, industrial, and other uses.....	Mil. sq. ft. surf. meas. cons.....	(NA)	8.1	46.5	9.8
24411 83	Combination wood and fiber boxes including wood and part wooden cigar boxes.....	Mil. containers	<sup>e</sup> 28.8	5.3	30.0	6.1
24411 00	Nailed or lock-corner wooden boxes, n.s.k.....		(X)	14.3	(X)	8.5
24412 --	Box shook for fruits, vegetables, and industrial uses.....		(X)	107.7	(X)	90.2
	Made from lumber:					
24412 11	For fruits and vegetables.....	Mil. bd. ft...	<sup>e</sup> 351.0	43.0	340.1	35.7
24412 15	For industrial and other uses.....	...do.....	<sup>e</sup> 331.3	48.7	242.2	32.9
	Made from veneer:					
24412 35	For fruits, vegetables, meat, industrial, and other uses.....	Mil. sq. ft. surf. measure	<sup>e</sup> 117.3	7.1	192.4	8.6
	Made from plywood:					
24412 55	For fruits, vegetables, industrial and other uses.....	...do.....	94.0	7.3	117.0	8.0
24412 00	Box shook for fruits, vegetables, and industrial uses, n.s.k....		(X)	1.6	(X)	5.1
24410 00	Nailed wooden boxes and shook, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	23.9	(X)	15.4
24410 02	Nailed wooden boxes and shook, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	10.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2441.--NAILED WOODEN BOXES AND SHOOK					
	Materials, containers, and supplies, total.....		(X)	135.6	(X)	97.6
	Logs, bolts, and unsliced flitches:					
241111	Hardwood.....	Mil. ft. (log scale).....	<sup>e</sup> 50.5	2.3	(S)	(S)
241112	Softwood.....	...do.....	<sup>e</sup> 98.7	6.5		
	Rough lumber:					
242110	Hardwood.....	Mil. bd. ft.....	158.2	11.1	203.6	13.7
242118	Softwood.....	...do.....	376.4	26.8	304.4	20.5
	Dressed lumber:					
242121	Hardwood.....	...do.....	<sup>e</sup> 16.5	1.5	40.6	3.9
242128	Softwood.....	...do.....	311.2	26.4	125.8	10.4
243203	Softwood plywood.....	Mil. sq. ft. (3/8" basis)....	<sup>e</sup> 41.9	3.7	(S)	2.4
243215	Hardwood plywood, container type.....	Mil. sq. ft. surf. meas.....	(NA)	2.1	(S)	2.6
243250	Hardwood veneer.....	Mil. sq. ft. (1" basis).....				
243260	Softwood veneer.....	...do.....				
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	32.6	(X)	22.2
971000	All other materials and components, parts, containers, and supplies consumed, n.s.k. <sup>1</sup> .....		(X)	22.6	(X)	18.1

<sup>e</sup> From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup> This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

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**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-24C-2

## INDUSTRY SERIES

**preliminary  
report**

### Wirebound boxes and crates

SIC Code 2442

The Wirebound Boxes and Crated Industry includes establishments primarily engaged in manufacturing wirebound boxes and crates.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Wirebound Boxes and Crates Industry amounted to \$145.0 million, an increase of 26.4 percent compared with 1963. Value added by manufacture at \$71.1 million in 1967 was 27.9 percent more than value added in 1963. Average

employment in the industry showed a decrease of 5 percent from 1963 to a total of 9.4 thousand employees in 1967.

Of the \$145.0 million total value of shipments and other receipts of establishments classified as wirebound boxes and crates, \$11.3 million were products primary to other industries; and \$9.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 89 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2442. --WIREBOUND BOXES AND CRATES														
1967 Census....	134	63	9.4	36.5	8.5	17.2	29.8	71.1	74.4	145.0	2.8	15.9	89	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.0	41.3	10.2	20.5	34.3	77.0	98.4	174.4	4.8	16.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.8	38.3	9.9	19.8	31.7	63.1	77.8	140.9	3.0	14.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	9.9	34.0	8.9	17.3	27.1	57.6	61.1	119.1	1.9	11.9	(NA)	(NA)
1963 Census....	117	70	9.9	32.7	9.0	17.7	26.7	55.6	59.1	114.7	1.6	13.6	92	93
1962 ASM <sup>1</sup> .....	(NA)	(NA)	10.4	32.3	9.1	17.6	25.3	58.3	64.3	122.3	*1.7	12.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	10.9	32.0	9.6	18.9	25.2	54.5	66.0	120.5	*1.4	13.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	10.3	30.1	9.2	18.3	23.5	52.4	57.9	110.0	1.2	12.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	10.7	30.7	9.6	19.8	24.3	51.8	55.9	107.6	*1.0	12.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	100	61	10.0	27.9	9.0	17.5	22.5	46.1	52.2	98.0	1.2	10.8	92	94

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 7, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of wirebound boxes and crates shipped by all producers in 1967 was \$131.8 million of which \$120.5 million, or 91 percent, were shipped by plants classified in industry 2442, Wirebound Boxes and Crates, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 93 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See Appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2442. --WIREBOUND BOXES AND CRATES													
United States, total.....	134	63	9.4	36.5	8.5	17.2	29.8	71.1	74.4	145.0	2.8	9.9	55.6
Northeast.....	16	4	0.4	2.1	0.3	0.7	1.6	3.6	4.0	7.7	(D)	(D)	(D)
East North Central....	29	11	0.9	4.0	0.8	1.5	3.1	8.1	7.0	15.0	(D)	0.8	6.1
Ohio.....	5	1	0.1	0.3	0.1	0.1	0.3	0.4	0.3	0.7	(D)	0.1	1.1
Wisconsin.....	8	4	0.4	1.8	0.3	0.7	1.4	3.8	2.4	6.2	0.2	0.3	2.0
West North Central....	10	2	0.2	0.8	0.2	0.4	0.7	1.8	2.1	3.9	(D)	0.1	1.0
South Atlantic.....	30	17	3.5	12.3	3.2	6.4	10.6	22.0	24.5	45.9	0.6	4.5	23.3
Georgia.....	7	5	1.6	5.9	1.5	2.9	5.0	9.4	8.9	18.2	0.2	1.8	10.3
Florida.....	13	7	1.2	4.2	1.2	2.3	3.6	8.4	9.6	17.8	0.4	1.4	6.5
East South Central....	15	13	2.7	10.6	2.5	5.0	8.5	23.0	23.4	46.5	(D)	2.3	12.7
West South Central....	10	9	1.1	4.4	1.0	2.3	3.6	8.3	7.8	16.1	0.6	1.3	6.9
Texas.....	5	4	0.4	1.7	0.4	0.9	1.4	3.3	3.7	7.0	0.1	0.4	1.9
West.....	24	7	0.5	2.3	0.5	0.8	1.7	4.4	5.5	9.9	0.2	(D)	(D)
California.....	17	5	0.4	1.7	0.3	0.6	1.2	3.2	3.7	6.9	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2442- --	WIREBOUND BOXES AND CRATES, TOTAL.....		(X)	131.8	(X)	107.6
24420 11	Wirebound boxes made from lumber.....	Million boxes..	10.3	32.7	5.7	14.2
24420 21	Wirebound boxes made from veneer and plywood: For fruits and vegetables.....	Million boxes..	87.9	33.1	83.9	28.8
24420 31	For meat (other than canned).....	..do.....	5.5	3.0	11.6	5.8
24420 51	For poultry.....	..do.....	52.2	21.9	61.8	25.4
24420 71	For industrial and other uses.....	..do.....	23.7	33.0	25.4	28.4
24420 00	Wirebound boxes and crates, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	5.6	(X)	5.1
24420 02	Wirebound boxes and crates, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	2.5		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2442.--WIREBOUND BOXES AND CRATES					
	Materials, containers, and supplies, total.....		(X)	63.7	(X)	53.8
241111	Logs, bolts, and unsliced flitches: Hardwood.....	Million feet (log scale)....	76.6	5.0	144.9	8.7
241112	Softwood.....	..do.....	18.8	1.2		
242110	Rough lumber: Hardwood.....	Million board ft. ..do.....	154.9	10.5	109.4	6.6
242118	Softwood.....	..do.....	33.3	2.0	29.8	1.8
242121	Dressed lumber: Hardwood.....	..do.....	42.9	3.4	39.4	2.5
242128	Softwood.....	..do.....	64.0	5.2	37.7	2.7
243203	Softwood plywood.....	Million sq. ft. (3/8" basis)....	8.1	0.6	1.5	0.1
243215	Hardwood plywood, container type.....	Million sq. ft. (surface meas.)..	(NA)	0.7	9.3	1.2
243250	Hardwood veneer.....	..do.....	450.7	9.2	487.4	8.6
243260	Softwood veneer.....	Million sq. ft. (1" basis).....	31.6	3.6	37.8	3.8
970099	All other materials, components, parts, containers, and supplies consumed.....		(X)	18.3	(X)	13.5
976000	All other materials, components, parts, containers, and supplies consumed, n.s.k. <sup>1</sup> .....		(X)	4.0	(X)	4.2

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<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

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**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

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# CURRENT INDUSTRIAL REPORTS

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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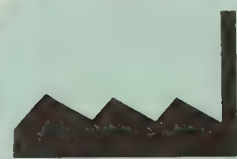
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OFFICIAL BUSINESS

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-24C-3

## INDUSTRY SERIES

### Veneer and plywood containers

SIC Code 2443

**preliminary  
report**

The Veneer and Plywood Containers, Except Boxes and Crates, Industry includes establishments primarily engaged in manufacturing veneer and plywood containers, except boxes. This industry includes baskets made primarily of veneer and splint for shipping and marketing fruits and vegetables.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Veneer and Plywood Containers Industry amounted to \$32.0 million, an increase of 14.7 percent compared with 1963. Value added by

manufacture at \$18.4 million in 1967 was 14.3 percent more than value added in 1963. Average employment in the industry showed a decrease of 17.5 percent from 1963 to a total of 3.3 thousand employees in 1967.

Of the \$32.0 million total value of shipments and other receipts of establishments classified as veneer and plywood containers, \$4.2 million were products primary to other industries; and \$1.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 76 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2443.--VENEER AND PLYWOOD CONTAINERS														
1967 Census.....	84	39	3.3	11.6	3.0	5.9	9.8	18.4	13.7	32.0	0.5	3.9	76	85
1966 ASM <sup>1</sup> .....	(NA)	(NA)	*3.0	*10.0	*2.8	*5.8	*8.6	*12.8	*11.4	*24.3	(S)	*2.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	*3.4	*11.0	*3.1	*6.5	*9.7	*15.8	*13.0	*28.9	*0.4	*3.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	3.5	10.8	3.2	6.3	9.2	14.7	12.9	27.4	*0.3	4.6	(NA)	(NA)
1963 Census.....	99	44	4.0	11.6	3.7	7.0	9.9	16.1	12.4	27.9	0.3	5.2	90	79
1962 ASM <sup>1</sup> .....	(NA)	(NA)	4.1	12.2	3.8	7.5	10.2	17.1	14.8	31.3	*0.6	4.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	4.6	12.2	4.2	8.3	10.3	17.5	14.2	32.4	*0.6	4.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	5.3	13.5	4.9	9.6	11.4	18.4	14.7	32.2	(S)	4.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	5.2	13.0	4.9	9.4	11.0	18.1	13.7	32.0	(S)	5.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	105	65	5.4	12.8	5.1	9.2	11.0	18.3	11.9	30.3	0.6	5.8	88	84

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 25 and 22, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of veneer and plywood containers shipped by all producers in 1967 was \$27.3 million of which \$23.1 million, or 85 percent, were shipped by plants classified in industry 2443, Veneer and Plywood Containers, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 79 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
	INDUSTRY 2443.--VENEER AND PLYWOOD CONTAINERS												
United States, total.....	84	39	3.3	11.6	3.0	5.9	9.8	18.4	13.7	32.0	0.5	4.0	16.1
Middle Atlantic.....	15	6	0.4	1.6	0.4	0.7	1.4	2.5	2.4	4.9	(Z)	(D)	(D)
New Jersey.....	5	4	0.3	1.1	0.3	0.5	0.9	1.6	1.9	3.5	(D)	0.4	1.2
North Central.....	27	12	0.8	2.6	0.7	1.3	2.2	4.3	3.5	7.8	0.1	0.6	2.4
Illinois.....	6	1	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.5	(D)	(D)	(D)
South.....	34	18	1.9	6.5	1.7	3.5	5.5	9.6	6.4	16.0	0.3	2.6	10.0
East South Central..	7	2	0.1	0.3	0.1	0.2	0.3	0.4	0.2	0.7	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2443- --	VENEER AND PLYWOOD CONTAINERS, TOTAL.....		(X)	27.3	(X)	29.2
24430 11	Veneer and plywood containers (pails, drums, tubs, etc.).....	Million.....	(NA)	5.8	10.4	2.3
	Fruit and vegetable baskets and hampers:					
24430 31	Hampers.....	do.....	13.7	5.2	11.0	3.2
24430 41	Continuous stave baskets.....	do.....	14.8	5.3	19.2	5.5
24430 51	Short stave baskets.....	do.....	4.3	1.7	19.4	6.5
24430 61	Berry cups and talls.....	do.....	152.5	2.8	197.8	3.0
24430 81	Other (including climax and splint baskets).....	do.....	20.9	3.5	(X)	3.9
24430 00	Veneer and plywood containers, except boxes and crates, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	2.2	}	4.9
24430 02	Veneer and plywood containers, except boxes and crates, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	0.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2443.--VENEER AND PLYWOOD CONTAINERS					
	Materials, containers, and supplies, total.....		(X)	12.1	(X)	10.4
	Logs, bolts, and unsliced flitches:					
241111	Hardwood.....	Million feet (log scale).....	42.4	3.2	49.3	3.1
241112	Softwood.....	do.....				
	Rough lumber:					
242110	Hardwood.....	Million board feet.....	5.7	0.5	11.1	0.8
242118	Softwood.....	do.....				
	Dressed lumber:					
242121	Hardwood.....	do.....	5.7	0.5	3.3	0.2
242128	Softwood.....	do.....				
243203	Softwood plywood.....	Million sq. ft. (3/8" basis)....	(NA)	2.6	(X)	0.4
243215	Hardwood plywood, container type.....	Million sq. ft. (surface measure).....				
243250	Hardwood veneer.....	do.....				
243260	Softwood veneer.....	Million sq. ft. (1" basis).....				
970099	All other materials, components, parts, containers, and supplies consumed.....		(X)	3.0	(X)	3.3
976000	All other materials, components, parts, containers, and supplies consumed, n.s.k.....		(X)	2.3	(X)	2.7

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2443, these small establishments accounted for approximately 2.6 percent of payrolls and 2.7 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--** All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--** This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--** This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--** The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--** In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

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In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

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"Value added" avoids the duplication in the value of shipments figure which results from

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**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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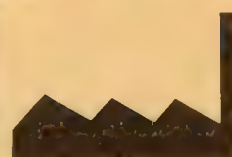
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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES

MC67(P)-24C-4



## INDUSTRY SERIES

**preliminary  
report**

### Cooperage

SIC Code 2445

The Cooperage Industry includes establishments engaged primarily in the manufacture of barrels, tubs, hogsheads, and other containers made of staves, except fruit and vegetable baskets.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Cooperage Industry amounted to \$78.8 million, an increase of 49 percent compared with 1963. Value added by manufacture at \$26 million

in 1967 was 26 percent more than value added in 1963. Average employment in the industry showed an increase of 4 percent from 1963 to a total of 2.7 thousand employees in 1967.

Of the \$78.8 million total value of shipments and other receipts of establishments classified in the Cooperage Industry, \$1.6 million were products primary to other industries; and \$1.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 97 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

(see appendix, Explanation of Terms)

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2445.--COOPERAGE													
1967 Census....	91	20	2.7	15.5	2.4	4.7	13.0	26.1	51.4	78.8	1.7	20.0	98	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	2.7	13.8	2.4	4.7	11.6	26.5	40.4	65.7	2.6	20.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	2.6	12.9	2.4	4.7	10.9	24.1	42.1	66.5	0.8	16.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	2.6	12.3	2.2	4.5	10.3	18.0	37.8	57.3	0.5	13.1	(NA)	(NA)
1963 Census....	107	23	2.6	11.6	2.3	4.4	9.6	17.5	35.0	52.9	0.6	16.7	97	99
1962 ASM <sup>1</sup> .....	(NA)	(NA)	3.2	12.7	2.8	5.3	10.5	20.7	40.3	61.6	0.6	23.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	3.5	13.7	3.0	5.9	11.5	20.7	48.5	70.9	0.6	21.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	3.6	14.0	3.1	6.2	11.9	20.9	50.6	72.8	(Z)	25.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	3.7	14.0	3.2	6.5	11.9	18.3	46.5	66.3	(S)	22.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	190	35	3.9	14.3	3.4	6.5	12.0	19.8	49.4	70.1	1.1	21.3	95	98

(NA) Not available. (Z) Less than \$500 thousand.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director

The total value of cooperage products shipped by all producers in 1967 was \$77.4 million of which \$75.8 million, or 98 percent, were shipped by plants classified in industry 2445, Cooperage, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 99 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1 and 2 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2445--COOPERAGE													
United States, total.....	91	20	2.7	15.5	2.4	4.7	13.0	26.1	51.4	78.8	1.7	2.6	17.5
North Central.....	25	3	0.6	3.7	0.5	1.0	3.0	7.5	7.6	15.1	(D)	0.7	6.2
South.....	26	10	1.7	9.8	1.5	3.0	8.4	15.3	38.3	55.1	(D)	1.5	9.0
East South Central...	11	6	1.3	8.1	1.2	2.3	6.9	13.3	34.9	49.5	(D)	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2445- --	COOPERAGE, TOTAL.....	.....	(X)	77.4	(X)	49.5
24450 12	Slack cooperage (hogsheads, barrels, and kegs, including recoopered used slack barrels and kegs).....	1,000 units...	4,452	7.0	3,580	5.4
	Tight cooperage, hogsheads, barrels, and kegs for bourbon and other whiskey:					
24450 53	New.....	...do.....	2,556	59.6	1,743	35.9
24450 55	Recoopered used.....	...do.....			487	1.6
24450 59	Other tight cooperage including recoopered used tight barrels, kegs, etc.....	...do.....	1,069	16.6	(NA)	3.0
24450 00	Cooperage, n.s.k. (Represents principally establishments with 10 employees or more in 1967. See Note.).....	.....	(X)	3.0		
24450 02	Cooperage, n.s.k. (Represents principally establishments with fewer than 10 employees in 1967. See Note.).....	.....	(X)	1.2	(X)	3.5

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. (X) Not applicable.

<sup>1</sup>Combined to avoid disclosing figures for individual companies.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2445, these small establishments accounted for approximately 2 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

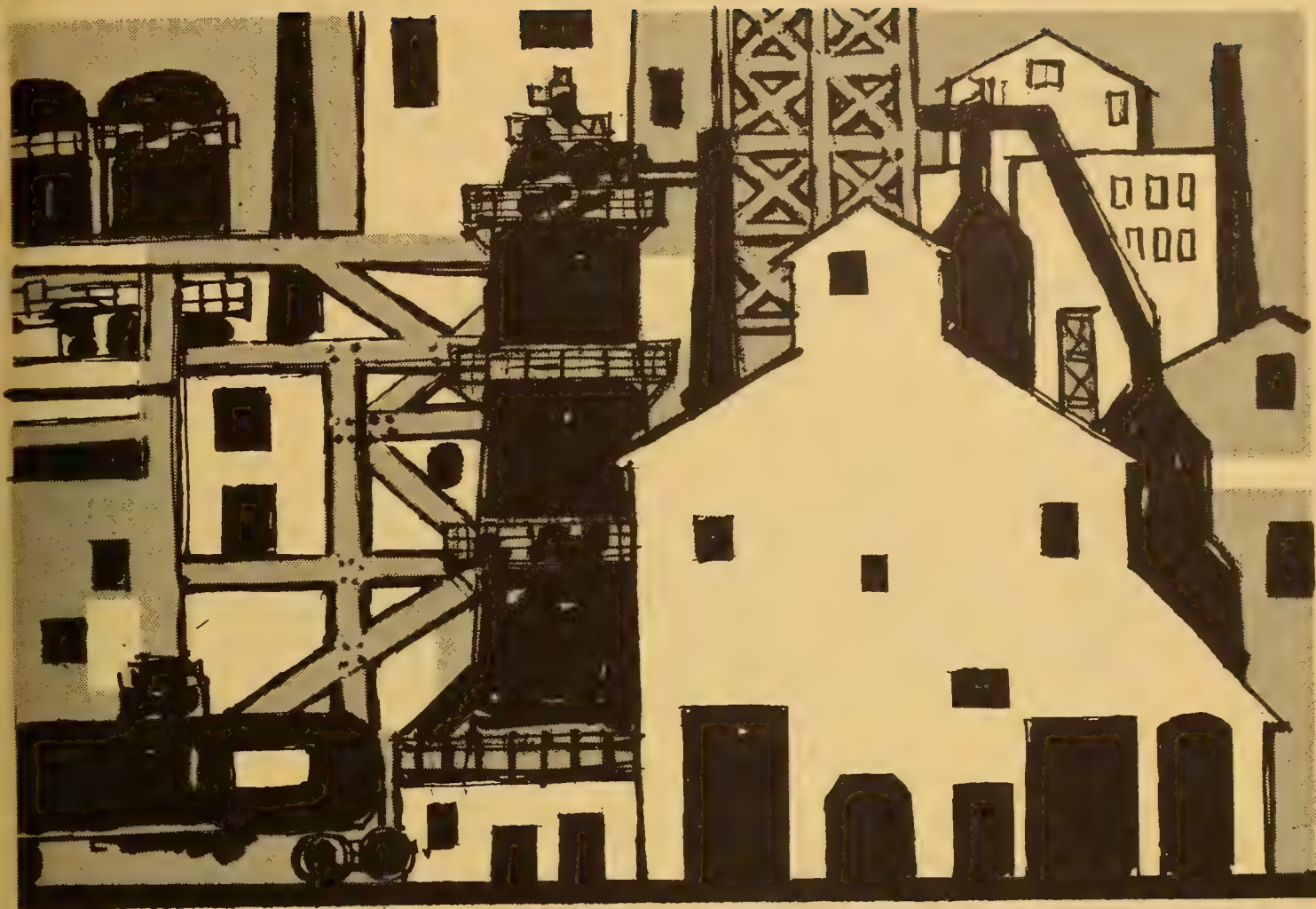
the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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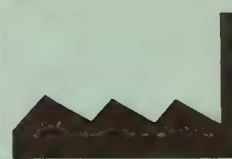
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**OFFICIAL BUSINESS**



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Wood preserving

SIC Code 2491

**preliminary  
report**

The Wood Preserving Industry includes establishments primarily engaged in treating wood, sawed or planed in other establishments, with creosote or other preservatives to prevent decay and to protect against fire and insects. This industry also includes the cutting, treating, and selling of poles, posts, and piling, but establishments primarily engaged in manufacturing other wood products, which they may also treat with preservatives, are not included.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Wood Preserving Industry amounted to \$344.3 million, an increase of 39 percent compared with 1963. Value added by manufacture at \$135.6 million in 1967 was 45.3 percent more than value added in 1963. Average employment in the industry showed an increase of 8.9 percent from 1963 to a total of 12.2 thousand employees in 1967.

Of the \$344.3 million total value of shipments and other receipts of establishments classified as wood preserving, \$6.6 million were products primary to other industries; and \$16.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
	INDUSTRY 2491.--WOOD PRESERVING													
1967 Census....	376	177	12.2	61.9	10.3	21.7	47.1	135.6	214.7	344.3	10.7	77.8	98	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	12.1	56.8	10.3	22.0	43.8	126.3	204.5	326.0	*10.4	74.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	11.2	48.6	9.5	19.9	37.1	101.7	178.9	279.6	11.4	61.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	11.1	48.3	9.3	19.3	35.9	97.9	170.2	270.9	5.8	59.6	(NA)	(NA)
1963 Census....	338	157	11.2	45.3	9.5	19.4	34.7	93.3	155.4	247.3	5.5	61.9	98	97
1962 ASM <sup>1</sup> .....	(NA)	(NA)	10.7	42.0	9.1	18.7	31.9	84.2	142.5	230.0	4.9	55.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	10.4	39.4	8.7	17.8	29.7	77.0	135.2	220.1	4.1	56.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	10.8	40.0	9.0	18.8	30.3	88.3	139.8	225.1	3.7	63.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	10.8	38.2	9.1	19.0	29.4	83.6	134.8	218.1	(D)	59.3	(NA)	(NA)
1958 Census <sup>2</sup> ....	306	148	10.9	36.6	9.2	17.9	28.1	72.5	127.9	203.0	3.7	57.9	98	96

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

percent, called the specialization ratio for the industry, was 98 percent in 1963.

tries. This percent, called the coverage ratio, was 97 percent in 1963.

The total value of wood preserving products shipped by all producers in 1967 was \$327.9 million of which \$321.3 million, or 98 percent, were shipped by plants classified in industry 2491, Wood Preserving, while the remainder was shipped by plants classified in other indus-

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2491.--WOOD PRESERVING													
United States, Total.....	376	177	12.2	61.9	10.3	21.7	47.1	135.6	214.7	344.3	10.7	11.2	93.3
Northeast.....	21	8	0.4	2.3	0.3	0.7	1.6	4.9	7.8	13.0	0.3	0.5	4.6
Pennsylvania.....	10	4	0.2	1.3	0.2	0.4	0.8	2.5	4.0	6.7	0.1	0.3	2.3
East North Central....	30	18	1.2	6.0	1.0	2.0	4.9	15.9	18.6	33.8	0.9	0.9	7.8
Ohio.....	10	6	0.3	1.9	0.3	0.6	1.5	5.3	6.3	11.4	0.1	(D)	(D)
Illinois.....	10	7	0.5	2.8	0.4	0.9	2.2	7.2	9.4	16.2	0.7	0.3	2.9
West North Central....	27	14	0.8	3.7	0.7	1.3	2.9	8.1	13.0	20.7	0.6	0.7	6.0
Minnesota.....	11	5	0.3	1.9	0.3	0.5	1.4	4.0	8.2	12.2	0.2	0.3	3.5
South Atlantic.....	97	40	3.3	16.3	2.7	5.8	11.7	36.2	56.4	89.6	2.3	3.5	25.5
Virginia.....	12	7	0.4	2.3	0.4	0.7	1.6	5.9	8.1	13.3	0.3	0.5	3.8
North Carolina.....	21	4	0.4	1.9	0.3	0.7	1.3	3.2	5.5	8.5	0.3	0.4	2.0
South Carolina.....	11	5	0.5	2.8	0.4	0.9	1.8	5.7	12.5	17.4	0.2	0.6	3.9
Georgia.....	22	12	0.9	4.3	0.7	1.5	3.1	11.5	14.5	24.6	0.7	0.9	7.0
Florida.....	20	6	0.5	2.3	0.4	1.0	1.7	4.6	9.4	14.3	0.4	0.7	5.5
East South Central....	56	24	2.0	8.7	1.7	3.7	6.7	19.1	34.5	53.3	2.4	1.7	13.2
Alabama.....	18	7	0.6	2.8	0.5	1.1	2.1	5.8	11.5	17.1	0.6	0.6	4.1
Mississippi.....	24	11	1.0	4.5	0.9	2.0	3.5	9.3	16.7	25.7	1.8	0.8	5.7
West South Central....	79	37	2.4	10.7	2.1	4.6	8.4	23.6	39.2	61.0	1.7	2.2	17.3
Arkansas.....	18	7	0.6	2.7	0.5	1.2	2.3	5.6	8.6	13.6	0.9	0.4	4.4
Louisiana.....	25	11	0.7	3.3	0.6	1.4	2.4	7.6	13.0	19.9	(D)	0.6	4.1
Oklahoma.....	9	5	0.2	0.9	0.2	0.4	0.7	2.8	3.7	6.4	(D)	0.3	2.8
Texas.....	27	13	0.9	3.8	0.7	1.7	2.9	7.6	13.9	21.2	0.3	0.8	6.0
Mountain.....	27	9	0.6	3.0	0.5	0.9	2.3	5.5	8.4	14.1	0.5	0.6	4.0
Idaho.....	7	1	0.1	0.7	0.1	0.2	0.6	1.2	2.2	3.7	(D)	0.1	1.2
Pacific.....	39	27	1.6	11.2	1.4	2.7	8.6	22.2	36.8	58.8	1.9	1.3	14.8
Washington.....	14	11	0.7	4.4	0.6	1.1	3.5	8.2	14.3	22.4	1.1	(D)	(D)
California.....	13	6	0.4	3.0	0.3	0.7	2.5	7.2	12.2	19.0	0.2	0.4	5.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2491- --	WOOD PRESERVING, TOTAL.....	.....	(X)	327.9	(X)	240.3
24911 --	Wood owned and treated by same establishment: Receipts from sales and transfers of wood owned and treated by same establishment.....	.....	(X)	285.1	(X)	209.1
24911 12	Poles and piling.....	.....	(X)	175.1	(X)	164.0
24911 18	Crossarms and sawn lumber, except railway ties.....	Million bd.ft.	<sup>e</sup> 337.5	56.1		
24911 15	Railway crosssties and switch ties.....	Million ties..	<sup>e</sup> 10.3	37.6		
24911 19	Other wood products owned and treated by same establishment...	.....	(X)	15.2	(X)	19.4
24911 00	Wood owned and treated by same establishment, n.s.k.....	.....	(X)	1.1	(X)	3.4
24919 11	Receipts for treating wood owned by other establishments.....	.....	(X)	28.4	(X)	25.9
24910 00	Wood preserving, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	6.7	(X)	5.3
24910 02	Wood preserving, n.s.k. (For companies with less than 10 employ- ees. See Note.).....	.....	(X)	7.7		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2491.--WOOD PRESERVING					
	Materials, parts, and supplies, total.....	.....	(X)	198.9	(X)	143.6
241109	Treated in same establishment: Poles, piling, and other round or hewn wood products.....	.....	(X)	83.0	(X)	55.3
242110	Rough lumber including sawn ties: Hardwood.....	Million bd. ft...	<sup>e</sup> 232.7	20.0	158.7	12.0
242118	Softwood.....	...do.....	<sup>e</sup> 376.4	33.3	276.6	23.0
281551	Consumed in same establishment: Creosote oil.....	Million gallons..	<sup>e</sup> 149.4	35.6	124.6	29.4
970099	All other materials, components, parts, containers, and supplies consumed.....	.....	(X)	18.4	(X)	12.5
976000	All other materials, components, parts, containers, and supplies consumed, n.s.k.....	.....	(X)	8.6	(X)	11.4

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2491, these small establishments accounted for approximately 2.3 percent of payrolls and 2.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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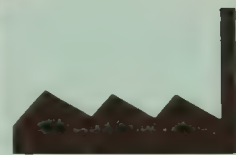
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Wood products, n.e.c.

SIC Code 2499

## preliminary report

The Wood Products, Not Elsewhere Classified, Industry includes establishments primarily engaged in turning and shaping wood and manufacturing miscellaneous wood products, not elsewhere classified, such as lasts and related products, cork products, mirror and picture frames, and particleboard.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Wood Products, N.E.C., Industry amounted to \$1,207.9 million, an increase of 53.8

percent compared with 1963. Value added by manufacture at \$615.6 million in 1967 was 46.5 percent more than value added in 1963. Average employment in the industry showed an increase of 21.7 percent from 1963 to a total of 70.6 thousand employees in 1967.

Of the \$1,207.9 million total value of shipments and other receipts of establishments classified as wood products, n.e.c., \$90.2 million were products primary to other industries; and \$47.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2499.--WOOD PRODUCTS, N.E.C.													
1967 Census....	3,167	876	70.6	340.7	61.0	120.1	256.2	615.6	590.4	1,207.9	55.7	146.8	92	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	65.3	303.1	56.4	114.0	234.3	561.6	516.4	1,069.2	48.2	11.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	61.5	270.7	53.6	106.9	207.9	498.1	440.2	937.4	48.0	108.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	59.8	254.2	51.4	103.0	196.3	464.1	407.3	869.0	38.1	106.8	(NA)	(NA)
1963 Census....	2,896	702	58.0	237.4	50.0	99.5	184.3	420.3	365.2	785.4	32.9	101.2	92	87
1962 ASM <sup>1</sup> .....	(NA)	(NA)	54.4	214.2	46.3	90.5	162.6	375.1	344.5	718.6	45.7	87.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	53.9	197.5	46.1	87.6	152.1	348.7	316.7	664.3	18.9	85.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	55.9	206.3	47.9	92.1	156.0	347.1	326.9	669.1	21.9	85.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	55.2	198.3	47.0	92.9	154.3	351.4	312.0	665.5	(D)	79.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	2,737	609	50.5	183.1	43.0	83.8	141.7	301.3	272.4	584.3	23.5	86.0	91	86

(D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of wood products, n.e.c., shipped by all producers in 1967 was \$1,155.8 million of which \$1,065.6 million, or 92 percent, were shipped by plants classified in industry 2499, Wood Products, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 87 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2499.--WOOD PRODUCTS, N.E.C.												
United States, total.....	3,167	876	70.6	340.7	61.0	120.1	256.2	615.6	590.4	1,207.9	55.7	58.0	420.3
Northeast.....	983	276	20.8	96.0	18.3	35.6	73.0	159.8	147.0	306.0	8.4	18.2	116.0
Maine.....	102	47	5.1	19.9	4.6	9.1	16.6	31.1	24.5	54.9	1.5	4.3	19.0
Rhode Island.....	16	3	0.2	0.8	0.2	0.4	0.6	1.4	1.2	2.7	(Z)	0.2	1.2
Pennsylvania.....	175	44	2.8	12.7	2.4	4.5	9.6	20.9	29.5	51.1	3.3	2.0	11.1
East North Central....	713	200	17.0	87.2	14.3	28.0	63.0	160.9	153.1	313.0	8.8	12.5	95.0
Ohio.....	162	41	3.1	16.1	2.5	5.0	11.8	33.3	28.8	62.4	1.6	(D)	(D)
Illinois.....	142	39	5.1	27.3	4.2	8.0	18.7	43.6	43.9	86.3	2.2	3.8	30.0
Michigan.....	199	60	4.5	23.6	3.8	7.4	17.1	50.8	45.1	95.6	2.2	(D)	(D)
West North Central....	206	56	3.8	17.3	3.4	6.6	13.1	30.1	35.8	65.8	1.4	2.8	18.5
Minnesota.....	55	8	0.9	5.0	0.8	1.6	3.8	8.9	9.7	18.4	0.4	0.8	6.5
Iowa.....	22	5	0.3	1.5	0.3	0.6	1.0	2.5	2.6	5.0	0.1	0.3	1.6
South Atlantic.....	330	89	6.9	29.8	6.0	11.7	22.5	53.0	58.9	111.6	6.3	5.3	33.1
Maryland.....	24	6	0.5	2.4	0.5	0.9	1.9	4.4	4.7	9.0	(D)	0.4	2.5
Virginia.....	46	18	1.5	6.2	1.3	2.5	4.8	12.0	13.4	25.3	1.1	1.2	8.7
North Carolina.....	95	31	2.6	11.4	2.2	4.4	8.8	19.4	23.7	43.0	1.4	1.8	11.1
South Carolina.....	31	7	0.6	2.8	0.4	0.9	2.0	4.7	5.3	10.2	0.6	0.4	2.4
Georgia.....	40	10	0.7	2.8	0.6	1.1	1.8	5.0	4.6	9.6	0.1	0.7	3.8
Florida.....	59	11	0.7	2.3	0.6	1.2	1.9	4.3	3.4	7.6	0.1	0.4	2.7
East South Central....	186	77	7.9	37.8	6.7	14.3	28.8	73.9	59.8	136.7	12.5	7.8	66.5
Alabama.....	33	8	0.7	2.6	0.6	1.2	2.2	5.0	8.4	13.4	0.3	0.3	1.8
Mississippi.....	37	21	4.4	24.4	3.5	8.1	17.9	51.7	34.5	89.2	11.3	4.8	53.0
West South Central....	217	63	4.3	17.2	3.9	7.6	13.8	30.1	34.7	64.7	10.6	3.6	19.6
Arkansas.....	53	26	1.7	6.9	1.6	3.1	5.8	12.3	12.7	25.4	6.0	1.5	6.9
Mountain.....	55	4	0.3	1.4	0.3	0.5	1.1	2.4	2.0	4.4	(Z)	0.2	1.0
Idaho.....	15	1	0.1	0.3	0.1	0.1	0.3	0.5	0.4	1.0	(D)	(D)	(D)
Arizona.....	8	1	0.1	0.3	0.1	0.1	0.3	0.6	0.6	1.2	(Z)	(D)	(D)
Pacific.....	477	111	9.5	54.0	8.1	15.7	40.8	105.5	98.6	205.7	7.8	7.6	70.6
Washington.....	57	18	0.9	4.2	0.8	1.4	3.3	8.2	8.5	16.5	0.5	(D)	(D)
California.....	327	64	5.8	32.5	5.0	9.7	24.3	63.0	57.8	122.4	2.5	5.2	45.5

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified. (Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2499- --	WOOD PRODUCTS, N.E.C., TOTAL.....		(X)	1,155.8	(X)	797.7
24991 --	Mirror and picture frames.....		(X)	113.1	(X)	82.2
	Frames for mirrors and pictures:					
24991 11	Wood.....		(X)	38.7	(X)	26.8
24991 15	Metal.....		(X)	20.8	(X)	17.1
24991 21	Finished moldings for mirrors and pictures.....		(X)	16.5	(X)	8.7
24991 51	Framed pictures.....		(X)	35.0	(X)	22.6
24991 00	Mirror and picture frames, n.s.k.....		(X)	2.1	(X)	7.0
24992 --	Pallets and skids.....		(X)	186.7	(X)	98.7
24992 62	Pallets, wooden, flat.....	Million.....	<sup>e</sup> 62.9	140.7	} 32.6	67.1
24992 64	Pallet containers.....	do.....	1.1	11.3		
24992 65	Skids, wooden.....	do.....	(NA)	14.1		12.1
24992 66	Pallets and skids, wood and metal combination.....	do.....	2.2	9.6		4.3
24992 00	Pallets and skids, n.s.k.....		(X)	11.0	(X)	15.1
24994 --	Cork products.....		(X)	20.5	(X)	25.6
24994 23	Cork disks and washers.....	1,000 lbs.....	12.2	4.9	16.1	6.0
24994 98	Other articles made of natural, granulated, and composition cork (shoe fittings, life-preserver blocks, fork flats, life preservers, expansion join material, newspaper mats, novelties, sheets, blocks, stoppers of all kinds, insulation products and floor and wall covering).....		(X)	15.6	(X)	19.2
24994 00	Cork products, n.s.k.....		(X)	-	(X)	0.4
24995 --	Wood products, n.e.c.....		(X)	459.0	(X)	340.8
	Lasts for boots and shoes, made of--					
24995 31	Wood.....	Million pairs..	<sup>e</sup> 0.8	4.3	1.6	7.4
24995 33	Materials other than wood.....	do.....	<sup>e</sup> 3.2	18.0	1.4	6.7
24995 39	Remodeled last sole patterns, forms, shoe-trees, and stretchers for boots and shoes).....		(X)	2.0	(X)	6.6
	Handtool handles:					
24995 51	Striking tool handles (axe, pick, hammer, etc.).....		(X)	14.2	(X)	9.1
24995 53	Lifting and pulling tool handles (fork, rake, spade, shovel, etc.).....		(X)	6.0	(X)	5.8
24995 55	Other handtool handles (peavey, scythe, shunt pole, cant hook, and other mechanics, farm garden, household, etc.).....		(X)	3.4	(X)	1.8
24995 57	Broom, mop, and paint brush handles.....		(X)	17.8	(X)	13.4
24995 59	Other handles.....		(X)	3.9	(X)	7.7
24995 61	Clothespins.....	Million gross..	6.8	5.3	6.9	4.6
24995 62	Dowel and dowel pins.....		(X)	15.2	(X)	9.4
24995 63	Pencil slats.....		(X)	10.5	(X)	5.8
24995 64	Tanks and vats, wooden, except coopered.....		(X)	6.6	(X)	11.4
24995 66	Fabricated hardboard products made from purchased hardboard: Prefinished paneling, except laminated and tiled wallboard (including siding and wall panels that are plastic coated, embossed, painted, grooved, printed, varnished, or shellacked).....	Million sq. ft. 1/8" basis....	351.0	38.3	} (NA)	18.8
24995 67	Dimension and parts (including cut to size and molded products).....	do.....	(NA)	21.7		
24995 68	Perforated board (including both prefinished perforated board and perforated board that is not face finished).....	do.....	<sup>e</sup> 339.6	0.9		
24995 69	Other fabricated hardboard products.....	do.....	(NA)	8.0		
24995 71	Stepladders.....	Million lin.ft.	<sup>e</sup> 12.1	13.2	10.8	9.6
24995 75	Rung ladders (nonextension, extension, and scaffolding ladders).....	do.....	<sup>e</sup> 6.9	6.5	14.4	10.3
24995 79	Other scaffolding equipment (horses, scaffold jacks, extension planks, window jacks, etc.).....		(X)	2.2	(X)	0.7
24995 81	Wood novelties and specialties (bookends, ashtrays, silverware chests, jewelry chests, etc.).....		(X)	32.0	(X)	28.3
24995 83	Woodenware; turned, shaped, or molded (dishes, serving forks, spoons, salad and mixing bowls, etc.).....		(X)	10.2	(X)	11.2
24995 84	Flat veneer products (forks, spoons, plates, tongue depressors, applicators, etc.).....		(X)	9.7	(X)	7.5
24995 85	Wooden reels for wire and cable.....		(X)	30.4	(X)	16.9

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967		Production for all purposes	1963	
			Total shipments, including interplant transfers			Total shipments, including interplant transfers	
			Quantity	Value (million dollars)		Quantity	Value (million dollars)
2499- --	WOOD PRODUCTS, N.E.C.--Continued						
24995 --	Wood products, n.e.c.--Continued						
24995 88	Wood garment hangers.....	1,000 tons...	(X)	10.0	(X)	(X)	7.0
24995 89	Wood flour.....	Million bd. ft.....	(X)	4.5	(X)	(NA)	3.6
24995 91	Other fabricated industrial parts, except hardwood.....		(NA)	25.5	(X)	(X)	12.9
	Toilet seats:						
24995 94	Plastic, solid, and cored, including hard rubber.....	Million.....	4.8	22.5	1.9	1.9	10.4
24995 97	Wood, including molded wood.....	...do.....	4.3	10.6	7.7	7.7	15.5
24995 86	Wood fences, all types, including ornamental picket, snow fence, etc.....		(X)	13.6	}	(X)	104.4
24995 98	Miscellaneous wooden goods and turning, including toothpicks; spools, except textile machinery spools; rattan and willowware products, etc.....		(X)	75.4			
24995 00	Wood products, n.e.c., n.s.k.....		(X)	16.6			
24996 --	Fabricated hardboard products made from hardboard produced at the same establishment:						
24996 11	Prefinished paneling, except laminated and tiled wallboard (including siding and wall panels that are plastic coated, embossed, painted, grooved, printed, varnished or shellacked).....	Million sq. ft. 1/8" basis.....	2,082.4	109.1	}	(X)	131.4
24996 21	Dimension and parts (including cut to size and molded products)	...do.....	82.3	2.8			
24996 31	Perforated board (including both prefinished perforated board and perforated board that is not face finished) (See also code 24995 68).....	...do.....	99.9	5.5			
24996 41	Panel stock (including interior and exterior panels and siding not face finished).....	...do.....	889.8	28.8			
24993 00	Particleboard (including woodboard made from flakes, splinters, shavings, or other wood residue with urea, phenolic, or other resins added as a binder and bounded together under heat and pressure):				}	2,807.0	2,777.3
	As reported in the census of manufactures.....	Million sq. ft. 3/4" basis.....	1,018.2	88.5			
24990 00	Wood products, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	1,034.2	94.3			
24990 02	Wood products n.e.c., n.s.k. (For companies with less than 10 employees, See Note.).....		(X)	80.8			
			(X)	61.0		(X)	64.0

Note: In the 1967 Census of Manufactures, the value of shipments for wood products, n.e.c., n.s.k. (For companies with 10 or more employees) is \$1,034.2 million.

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup> From 10 to 30 percent of this figure was estimated.

(X) Not applicable.

- Represents zero.

(NA) Not available.

n.e.c. Not elsewhere classified.

n.s.k. Not specified by kind.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2499.--WOOD PRODUCTS, N.E.C.					
	Materials, containers, and supplies consumed, total.....		(X)	524.6	(X)	326.1
241108	Logs, bolts, and unsliced flitches.....	Million ft (log scale).....	<sup>e</sup> 754.5	40.8	372.5	19.5
242110	Rough lumber including sawn ties:					
	Hardwood.....	Million bd. ft...	<sup>e</sup> 712.2	57.7	459.7	32.1
242118	Softwood.....	..do.....	<sup>e</sup> 248.6	20.7	198.7	15.4
	Dressed lumber:					
242121	Hardwood.....	..do.....	<sup>e</sup> 207.5	22.4	111.4	10.4
242128	Softwood.....	..do.....	<sup>e</sup> 373.3	34.1	198.5	18.7
242622	Rough, surfaced, or semifabricated hardwood dimension and dimension stock.....	..do.....	(NA)	14.5	51.0	8.7
242011	Chips, slabs, edgings, shavings, sawdust, and other wood wastes..	..do.....	(X)	14.5	(X)	7.2
249960	Hard pressed wood fiberboard.....	Million sq. ft. (1/8" basis)....	(X)	30.3	}	136.4
970099	All other materials, components, parts, containers, and supplies consumed.....	..do.....	(X)	205.8		
976000	All other materials, components, parts, containers, and supplies consumed, n.s.k.....	..do.....	(X)	83.8		

<sup>e</sup> From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2499, these small establishments accounted for approximately 4.5 percent of payrolls and 5.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.









# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Wood household furniture

SIC Code 2511

The Wood Household Furniture, Except Upholstered, Industry includes establishments primarily engaged in manufacturing wood household furniture commonly used in dwellings. This industry also includes the manufacture of wood kitchen cabinets on a factory basis, and camp furniture. Establishments primarily engaged in manufacturing upholstered furniture are classified in industry 2512, and reed and rattan furniture in industry 2519.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Wood Household Furniture Industry

amounted to \$2,439.1 million, an increase of 31 percent compared with 1963. Value added by manufacture at \$1,334.1 million in 1967 was 34 percent more than value added in 1963. Average employment in the industry showed an increase of 11 percent from 1963 to a total of 157.6 thousand employees in 1967.

Of the \$2,439.1 million total value of shipments and other receipts of establishments classified in the Wood Household Furniture Industry, \$113.5 million were products primary to other industries; and \$109.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2511.--WOOD HOUSEHOLD FURNITURE														
1967 Census....	3,086	1,011	157.6	739.2	139.9	284.4	583.5	1,334.1	1,132.1	2,439.1	74.4	397.0	95	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	160.4	736.0	142.2	298.3	587.9	1,294.6	1,150.7	2,423.4	78.6	377.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	152.6	679.1	135.6	284.5	540.4	1,173.7	1,028.9	2,201.1	59.1	316.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	144.9	626.6	127.4	270.4	499.0	1,025.8	1,000.3	2,013.7	*45.7	303.3	(NA)	(NA)
1963 Census....	3,063	992	141.0	574.6	124.7	259.3	462.7	993.2	872.8	1,858.0	40.4	285.3	94	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	135.8	537.9	119.9	250.9	424.3	900.4	806.9	1,698.3	28.2	253.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	128.3	481.6	112.9	228.7	374.7	782.1	712.9	1,496.9	21.7	231.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	133.0	499.2	117.4	240.3	391.0	809.7	746.9	1,551.9	25.8	240.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	137.4	507.8	121.4	251.0	399.9	837.0	781.0	1,604.9	31.0	238.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	2,825	934	125.6	443.3	109.3	218.1	345.2	706.3	677.6	1,382.2	26.2	216.6	94	94

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

The total value of wood household furniture shipped by all producers in 1967 was \$2,299.0 million of which \$2,215.7 million, or 96 percent, were shipped by plants classified in industry 2511, Wood Household Furniture, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2511.--WOOD HOUSEHOLD FURNITURE													
United States, total.....	3,086	1,011	157.6	739.2	139.9	284.4	583.5	1,334.1	1,132.1	2,439.1	74.4	141.0	993.2
New England.....	219	76	8.9	46.6	7.7	16.0	35.5	74.1	76.4	150.1	3.5	8.7	60.2
New Hampshire.....	22	12	1.5	7.2	1.3	2.6	5.3	11.5	11.6	22.9	0.3	1.5	10.1
Vermont.....	22	12	2.0	10.7	1.8	3.9	8.5	16.4	27.2	43.2	(D)	1.7	12.1
Massachusetts.....	122	40	4.0	21.9	3.4	7.1	16.6	34.8	27.5	62.6	1.2	4.5	31.2
Connecticut.....	39	7	1.0	4.9	0.8	1.6	3.7	7.8	7.3	14.9	0.2	0.7	4.2
Middle Atlantic.....	695	192	18.3	92.5	16.0	32.1	71.6	155.1	133.9	285.5	11.8	17.8	126.3
New York.....	394	89	7.8	40.8	6.7	13.2	30.8	67.6	51.9	119.4	2.9	8.2	61.0
New Jersey.....	126	33	2.2	11.6	1.9	3.9	8.3	20.4	27.0	47.6	0.8	2.2	16.3
Pennsylvania.....	175	70	8.3	40.1	7.4	15.0	32.5	67.1	55.0	118.5	8.1	7.4	49.0
East North Central....	466	204	27.2	141.3	23.9	48.1	109.8	245.5	198.5	442.5	11.5	25.1	180.1
Ohio.....	66	22	2.2	11.8	1.9	3.8	9.2	21.2	18.8	39.9	0.6	1.8	15.2
Indiana.....	115	58	12.9	67.3	11.3	23.1	53.5	123.2	102.5	222.7	6.8	11.4	83.9
Illinois.....	136	51	4.6	24.1	4.1	8.0	18.4	37.2	34.3	73.2	1.7	4.8	31.0
Michigan.....	95	44	5.3	26.3	4.4	9.0	20.0	44.4	27.5	71.4	1.8	4.6	33.4
Wisconsin.....	54	19	2.4	11.9	2.0	4.2	8.9	19.6	15.4	35.3	0.4	2.5	16.7
West North Central....	140	29	2.7	12.1	2.3	4.3	8.8	20.4	20.5	40.6	0.5	2.0	14.0
Minnesota.....	43	5	0.8	3.5	0.7	1.4	2.6	5.6	3.8	9.2	0.1	0.7	4.4
Iowa.....	16	6	0.5	2.9	0.4	0.8	2.0	4.5	4.2	8.8	0.1	0.4	3.6
Missouri.....	51	15	1.1	4.5	0.9	1.7	3.2	7.8	10.1	17.7	0.2	0.8	5.5
South Atlantic.....	534	232	60.0	261.0	54.7	114.5	214.2	525.7	422.4	925.4	33.1	52.6	376.3
Maryland.....	35	14	1.1	5.2	0.9	1.8	4.0	8.8	5.8	14.6	(D)	1.1	7.7
Virginia.....	75	37	17.2	79.7	15.8	34.5	66.3	160.4	138.6	295.6	7.4	14.7	124.9
North Carolina.....	167	110	32.1	138.1	29.5	61.2	114.1	289.1	220.3	493.2	20.9	28.1	194.8
South Carolina.....	32	11	3.1	12.4	2.6	5.5	9.4	21.6	16.7	36.6	1.4	2.6	16.1
Georgia.....	74	27	3.6	13.8	3.3	6.4	11.4	23.3	23.8	46.0	2.3	2.9	13.8
Florida.....	139	28	2.4	9.7	2.1	4.1	7.4	18.8	14.3	32.9	0.8	2.7	17.3
East South Central....	181	75	18.4	77.4	16.2	32.2	60.8	130.3	118.2	248.7	6.6	15.0	88.2
Kentucky.....	36	12	2.6	12.6	2.4	4.4	10.2	17.8	17.3	35.7	1.0	2.6	16.9
Tennessee.....	86	41	9.8	40.9	8.6	17.5	32.0	67.2	58.1	125.3	2.8	7.9	43.7
Alabama.....	37	10	1.5	6.2	1.4	3.0	5.2	12.4	12.3	24.2	0.9	1.5	9.8
Mississippi.....	22	12	4.5	17.8	3.9	7.3	13.4	33.0	30.4	63.4	2.0	3.0	17.9
West South Central....	170	60	10.4	43.5	9.2	18.4	33.9	73.3	78.2	152.1	4.6	7.7	43.7
Arkansas.....	32	19	5.7	24.5	5.1	10.1	19.2	38.9	45.0	84.3	2.1	5.0	27.5
Louisiana.....	16	5	0.2	1.0	0.2	0.4	0.8	2.1	2.5	4.5	(Z)	0.3	1.4
Oklahoma.....	25	8	0.9	3.7	0.8	1.6	3.0	5.6	5.8	11.3	0.2	0.7	4.5
Texas.....	97	28	3.6	14.3	3.1	6.3	10.8	26.7	25.0	51.9	2.3	1.6	10.3
Mountain.....	77	12	0.6	3.0	0.6	1.1	2.2	4.9	5.1	10.0	0.3	0.7	5.2
New Mexico.....	12	2	0.1	0.4	0.1	0.2	0.3	0.8	0.9	1.7	(D)	0.1	0.4
Utah.....	15	3	0.1	0.7	0.1	0.2	0.5	0.8	1.0	1.8	0.1	0.2	1.1
Pacific.....	601	131	11.1	61.8	9.5	17.8	46.6	104.6	78.9	184.2	2.5	11.4	99.2
Oregon.....	41	11	1.8	9.2	1.6	2.9	7.7	14.8	9.9	25.1	0.5	1.5	12.6
California.....	497	106	7.5	44.0	6.5	12.4	32.4	75.0	57.6	132.7	1.6	8.5	76.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2511- --	WOOD HOUSEHOLD FURNITURE, TOTAL.....	(X)	2,299.0	(X)	1,759.3
25111 --	Radio, phonograph, and television wood cabinets, total.....	(X)	257.4	(X)	158.4
25111 13	Radio, phonograph, and Hi-Fi cabinets and combinations thereof.....	<sup>e</sup> 4,728	121.1	3,799	72.5
25111 15	Television cabinets and combinations, TV, Hi-Fi, and radio.....	3,742	132.2	3,256	84.7
25111 00	Radio, phonograph, and television wood cabinets, n.s.k.....	(X)	4.1	(X)	1.1
25112 --	Other wood living room, library, sunroom, and hall furniture, total.....	(X)	393.8	(X)	315.4
25112 11	Sewing machine cabinets.....	<sup>e</sup> 1,825	45.3	698	18.3
25112 19	Other cabinets (records, music, sewing, smoking, etc.).....	(X)	15.9	(X)	8.8
25112 33	Chairs, except dining room.....	<sup>e</sup> 983	15.1	666	12.4
25112 35	Rockers.....	402	7.1	445	5.9
25112 41	Tables (all types) except card and telephone tables.....	<sup>e</sup> 596	213.7	9,831	166.2
25112 51	Desks.....	<sup>e</sup> 690	30.8	623	23.8
25112 71	Credenzas, bookcases, and bookshelves.....	(X)	24.6	(X)	15.5
25112 98	Other nonupholstered living room furniture (settees, love seats, benches, secretaries, breakfronts, bars, cellarets, magazine racks, smoking stands, ornamental screens, whatnots, hanging shelves, telephone tables and chairs, piano stools, benches, card tables and chairs, etc.).....	(X)	33.4	(X)	33.6
25112 00	Other wood living room, library, sunroom, and hall furniture, n.s.k.....	(X)	7.9	(X)	30.8
25113 --	Wood dining room and kitchen furniture (except cabinets), total.....	(X)	375.4	(X)	272.3
25113 11	Tables 30 x 40 inches and greater, dining room.....	1,426	96.2	1,274	68.7
25113 31	Chairs, dining room.....	8,553	140.3	7,217	100.2
25113 51	Buffets and servers, dining room.....	747	64.7	649	48.4
25113 71	China and corner cabinets, dining room.....	578	59.5	460	39.1
25113 88	Other dining and kitchen furniture, including breakfast sets, junior dining furniture, chairs, stools, and tables, not sold as a set.....	(X)	13.0	(X)	7.1
25113 00	Wood dining room and kitchen furniture, n.s.k.....	(X)	1.7	(X)	8.8
25114 --	Kitchen cabinets, wood.....	(X)	250.8	(X)	250.1
	Complete kitchen cabinets (factory made) including complete cabinets to be used as individual units, or to be combined with other cabinets to form a built-in unit. Including sink bases and fronts, wall and utility cabinets; excluding sink bowls, drain boards and sink tops:				
25114 12	Assembled.....	<sup>e</sup> 8,265	238.1	7,311	203.2
25114 15	Unassembled.....	<sup>e</sup> 650	10.0	636	12.2
25114 00	Kitchen cabinets (factory made) not identified as assembled or unassembled.....	(X)	2.7	(X)	34.7
25115 --	Wood bedroom furniture, total.....	(X)	697.8	(X)	578.2
25115 11	Beds, excluding headboards, headboard beds, bunk beds, cribs, cradles, hollywood beds, and youth beds.....	<sup>e</sup> 2,623	89.9	2,505	68.8
25115 13	Headboards and headboard beds.....	3,129	84.9	2,739	56.2
25115 15	Bunk beds, excluding mattresses and detachable springs.....	646	20.2	609	16.4
25115 21	Dressers, vanities, and dressing tables.....	3,126	214.1	3,674	200.1
25115 33	Wardrobes, chifforobes, armoires, and wardrobe-type cabinets.....	222	18.3	226	9.5
25115 35	Chests of drawers.....	3,389	156.7	3,570	135.3
25115 41	Cedar chests.....	253	10.4	274	8.0
25115 61	Night tables and stands.....	2,015	57.5		
25115 98	Other nonupholstered bedroom furniture, including commodes, bedrails, chairs, rockers, benches, valet stands, etc.....	(X)	31.8	(X)	67.7
25115 00	Bedroom furniture, n.s.k.....	(X)	13.2	(X)	16.3
25116 --	Infants' and children's wood furniture, total.....	(X)	44.3	(X)	43.5
25116 11	Cribs, including springs sold as part of the crib.....	1,181	24.3	784	14.5
25116 42	Play yards and playpens.....	367	3.9	473	5.0
25116 98	Other infants' and children's furniture (chairs, tables, wardrobes, cradles, youth beds, chests of drawers, baby baths, nursery seats and chairs, highchairs and combination feeding chair-tables, etc.).....	(X)	16.1	(X)	22.6
25116 00	Infants' and children's wood furniture, n.s.k.....	(X)	-	(X)	1.4
25117 --	Wood outdoor furniture, and unpainted wood furniture, total.....	(X)	63.7	(X)	51.2
25117 21	Porch, lawn, beach and similar wood furniture: Chairs, rockers, benches, and chaise lounges, including steamer and deck chairs.....	<sup>e</sup> 1,564	17.3	688	5.3
25117 29	Other wood porch, lawn, beach and similar furniture, including gliders, swings, hammocks, tables, picnic table sets, and folding cots.....	(X)	7.5	(X)	11.5

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2511- --	WOOD HOUSEHOLD FURNITURE--Continued				
25117 --	Wood outdoor furniture, and unpainted wood furniture--Continued				
	Unpainted wood furniture (furniture-in-the-white):				
25117 45	Chests of drawers.....	1,593	20.5	1,331	13.7
25117 49	Other furniture-in-the-white (unpainted) (bookcases, chairs, tables, beds, vanities, dressing tables, desks, corner cabinets, folding screens, hanging shelves, wardrobes, etc.).....	(X)	13.5	(X)	15.3
25117 61	Unassembled or knock-down wood household furniture sold in kits.....	(X)	2.8	(X)	5.4
25117 00	Wood outdoor furniture and unpainted wood furniture, n.s.k.....	(X)	2.1	(X)	90.2
25110 00	Wood household furniture, except upholstered, n.s.k. (For companies with 10 or more employees, See Note).....	(X)	141.4	(X)	
25110 02	Wood household furniture, except upholstered, n.s.k. (For companies with less than 10 employees, See Note).....	(X)	74.4	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2511.—WOOD HOUSEHOLD FURNITURE					
	Materials, parts, containers, and supplies, total.....	Million bd. ft...	(X)	1,028.4	(X)	799.2
242101	Hardwood lumber, rough and dressed.....	...do.....	<sup>e</sup> 1,205.3	190.2	1,167.7	162.4
242103	Softwood lumber, rough and dressed.....	...do.....	<sup>e</sup> 282.6	33.4	252.1	25.2
243250	Hardwood veneer.....	Million sq. ft...	1,030.2	54.7	1,178.0	50.0
	Hardwood plywood other than container type:					
243211	Veneer core.....	...do.....	(NA)	62.6	244.2	46.2
243213	Lumber core, including particleboard core.....	...do.....	(NA)	31.7	67.6	21.2
243203	Softwood plywood.....	...do.....	<sup>e</sup> 109.4	15.0	78.0	11.8
249930	Particleboard.....	Million sq. ft. 3/4" basis.....	<sup>e</sup> 154.0	21.1	112.7	11.5
242622	Rough surfaced, or semifabricated hardwood furniture dimension and dimension stock.....	Million bd. ft...	<sup>e</sup> 237.1	87.5	160.5	48.1
251261	Furniture frames, wood.....	.....	(X)	10.2	(X)	5.3
322150	Mirrors, framed and unframed.....	Million sq. ft...	(NA)	15.5	20.7	14.1
321101	Flat glass (plate and sheet).....	...do.....	(NA)	4.8	6.8	2.7
285101	Paints, varnishes, lacquers, japans, and enamel.....	Million gallons..	<sup>e</sup> 27.0	53.3	24.3	47.4
342901	Furniture and builders' hardware, including cabinet hardware casters, gliders, handles, hinges, locks, etc.....	.....	(X)	63.1	(X)	48.4
307931	Plastic laminated sheets.....	.....	(X)	25.9	(X)	18.0
249960	Hard pressed wood fiberboard.....	Million sq. ft. 1/8" basis.....	(NA)	18.7	162.2	9.1
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	225.1	(X)	141.8
971000	All other materials, components, parts, containers, and supplies, n.s.k.....	.....	(X)	115.6	(X)	136.1

<sup>e</sup>From 10 to 30 percent of this figure was estimated.

(NA) Not available.

n.s.k. Not specified by kind.

(X) Not applicable.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2511, these small establishments accounted for approximately 2.5 percent of payrolls and 2.9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

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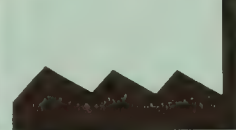
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Upholstered household furniture

SIC Code 2512

**preliminary  
report**

The Wood Household Furniture, Upholstered, Industry includes establishments primarily engaged in manufacturing upholstered furniture on wood frames, or manufacturing wood frames for upholstered furniture. Shops primarily engaged in reupholstering furniture, or upholstering frames to individual order, are classified in non-manufacturing industries. Establishments primarily engaged in manufacturing dual purpose sleep furniture, such as studio couches, sofa beds, and chair beds are classified in industry 2515, Mattresses and Bedsprings, regardless of the material used in the frame.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Upholstered Household Furniture Industry amounted to \$1,242.1 million, an increase of 26.3 percent compared with 1963. Value added by manufacture at \$657.3 million in 1967 was 29.7 percent more than value added in 1963. Average employment in the industry showed an increase of 9.3 percent from 1963 to a total of 74.1 thousand employees in 1967.

Of the \$1,242.1 million total value of shipments and other receipts of establishments classified as upholstered household furniture, \$73.8 million were products primary to other industries; and \$28.9 million were receipts for miscellaneous

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (per-cent)	Coverage ratio (per-cent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2512.--UPHOLSTERED HOUSEHOLD FURNITURE													
1967 Census....	1,640	723	74.1	370.7	64.0	124.0	282.9	657.3	588.6	1,242.1	16.5	138.5	94	94
1966 ASM <sup>1</sup> .....	(NA)	(NA)	77.9	371.6	67.1	129.4	280.7	654.9	613.3	1,265.0	24.8	128.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	75.0	351.0	64.5	125.6	265.9	601.2	570.2	1,173.5	22.1	116.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	72.5	314.1	62.1	119.3	245.1	550.0	525.0	1,068.9	14.5	110.5	(NA)	(NA)
1963 Census....	1,785	713	67.8	291.6	57.9	113.2	225.6	506.7	478.9	983.2	13.7	104.3	92	92
1962 ASM <sup>1</sup> .....	(NA)	(NA)	66.9	280.3	57.6	115.6	214.0	478.5	468.7	944.8	12.8	92.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	63.3	253.4	54.6	107.2	194.2	432.0	423.3	855.2	10.4	90.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	66.3	254.6	56.2	111.0	194.8	443.6	428.8	874.5	10.2	84.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	65.8	254.6	56.2	112.6	196.2	449.4	437.2	885.7	15.4	90.7	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,760	682	67.7	257.0	51.5	99.0	176.3	432.2	391.8	877.4	11.0	86.9	91	91

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

The total value of upholstered household furniture shipped by all producers in 1967 was \$1,219.3 million of which \$1,145.5 million, or 94 percent, were shipped by plants classified in industry 2512, Upholstered Household Furniture,

while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 92 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)		(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2512.--UPHOLSTERED HOUSEHOLD FURNITURE												
United States, total.....	1,640	723	74.1	370.7	64.0	124.0	282.9	657.3	588.6	1,242.1	16.5	67.8	506.7
New England.....	110	47	3.0	14.6	2.5	4.8	11.1	25.6	21.0	46.5	0.4	3.1	23.1
Massachusetts.....	76	33	2.3	11.5	1.9	3.7	8.5	19.7	16.2	35.9	0.2	2.5	18.8
Connecticut.....	21	12	0.6	2.8	0.5	1.0	2.3	5.1	4.1	9.2	0.1	0.5	3.7
Middle Atlantic.....	296	88	7.6	42.4	6.6	12.4	33.3	72.7	60.2	132.6	1.3	8.0	65.4
New York.....	188	44	3.8	22.3	3.4	6.0	17.8	37.6	29.7	67.3	0.7	4.4	38.6
New Jersey.....	23	9	0.4	2.4	0.3	0.5	1.7	3.9	3.1	6.9	(Z)	(D)	(D)
Pennsylvania.....	85	35	3.4	17.7	3.0	5.9	13.9	31.3	27.4	58.5	0.6	(D)	(D)
East North Central....	207	92	10.7	60.5	9.1	17.7	45.8	108.3	92.7	202.4	(D)	10.9	90.9
Indiana.....	36	21	2.5	13.0	2.2	4.4	9.9	21.8	15.7	37.4	0.4	2.9	20.5
Michigan.....	51	21	2.2	12.4	1.8	3.5	9.5	25.5	24.3	50.1	0.7	2.1	19.1
West North Central....	58	25	1.9	11.4	1.6	3.1	7.2	18.9	16.7	35.4	0.4	2.0	15.9
Missouri.....	23	8	0.4	2.0	0.4	0.7	1.5	3.4	4.0	7.3	0.1	0.7	4.6
Nebraska.....	9	6	0.4	2.8	0.4	0.8	1.8	4.6	3.3	7.9	0.1	0.4	3.8
South Atlantic.....	369	204	25.2	119.4	21.8	42.9	90.9	218.2	198.8	414.4	8.1	20.0	140.3
Maryland.....	17	8	0.7	3.7	0.6	1.3	2.8	6.3	5.1	11.4	0.1	0.9	6.2
Virginia.....	18	11	2.4	12.2	2.0	4.1	8.7	22.5	22.3	44.8	(D)	2.2	17.6
North Carolina.....	264	151	18.7	87.8	16.4	31.7	68.1	164.9	146.8	309.4	6.6	14.2	100.5
Georgia.....	15	9	1.4	7.0	1.2	2.3	4.7	10.7	11.2	21.8	0.5	1.5	8.8
Florida.....	40	17	1.1	5.0	0.9	1.9	3.9	7.8	6.9	14.6	0.3	0.9	4.7
East South Central....	140	89	12.5	51.0	10.8	21.5	40.0	93.3	92.1	183.4	2.3	10.0	59.9
Kentucky.....	18	15	1.4	6.2	1.2	2.4	4.8	10.4	9.0	19.3	(D)	1.3	7.4
Tennessee.....	78	44	6.0	22.9	5.2	9.9	18.1	39.1	37.9	77.5	0.8	5.5	29.6
Alabama.....	13	8	0.8	3.2	0.7	1.3	2.4	5.0	4.8	9.8	(D)	0.6	3.4
Mississippi.....	31	24	4.3	18.7	3.7	7.9	14.7	38.8	40.4	76.9	0.5	2.7	19.5
West South Central....	112	50	4.7	19.4	4.1	7.8	15.0	34.4	34.4	68.8	(D)	4.9	33.2
Texas.....	55	28	2.3	9.9	2.0	3.9	7.5	16.9	17.0	33.9	0.4	2.8	18.9
Mountain.....	34	14	0.7	3.8	0.6	1.2	2.9	6.7	5.7	12.4	0.1	0.7	4.9
Colorado.....	16	4	0.2	1.0	0.2	0.3	0.7	2.0	1.4	3.4	(Z)	(D)	(D)
Arizona.....	7	3	0.2	0.9	0.2	0.3	0.8	2.2	1.7	3.9	0.1	(D)	(D)
Utah.....	4	4	0.2	1.2	0.2	0.4	0.9	1.7	1.6	3.2	(D)	0.2	1.3
Pacific.....	314	114	7.8	48.3	6.7	12.6	36.7	79.3	66.9	146.2	1.2	8.2	73.2
Oregon.....	15	5	0.6	3.9	0.5	1.0	3.0	5.6	4.8	10.7	(D)	(D)	(D)
California.....	277	102	6.7	41.5	5.8	10.9	31.5	69.6	58.2	127.6	1.0	7.4	66.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2512- --	UPHOLSTERED HOUSEHOLD FURNITURE, TOTAL.....	(X)	1,219.3	(X)	959.0
25121 --	Upholstered wood household furniture, total.....	(X)	1,058.9	(X)	865.5
25121 12	Sofas, davenports (excluding dual-purpose), settees and loveseats, excluding chairs sold as part of suites and sectional sofa pieces.....	3,979	461.6	3,125	319.5
25121 32	Chairs, except reclining.....	6,195	321.3	6,725	277.0
25121 41	Sectional sofa pieces, including pieces seating one person.....	<sup>e</sup> 534	56.3	1,096	92.7
25121 45	Rockers, including swivel rockers.....	1,189	53.7	1,489	56.3
25121 54	Reclining chairs, all types.....	2,266	126.8	1,176	59.5
25121 98	Other upholstered wood household furniture (ottomans, hassocks, bedroom chairs, chaise lounges, benches, etc.).....	(X)	26.7	(X)	24.5
25121 00	Wood household furniture, upholstered, except dual-purpose sleep furniture, n.s.k.....	(X)	12.5	(X)	36.1
25126 11	Wood frames for household furniture.....	<sup>e</sup> 4,355	52.4	(S)	53.4
25120 00	Wood household furniture, upholstered, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	80.2	(X)	40.1
25120 02	Wood household furniture, upholstered, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	27.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2512.--UPHOLSTERED WOOD FURNITURE					
	Materials, parts containers, and supplies, total.....		(X)	560.8	(X)	457.6
242101	Hardwood lumber rough and dressed.....	Million bd. ft..	<sup>e</sup> 369.2	47.0	335.7	35.4
242103	Softwood lumber, rough and dressed.....	...do.....	<sup>e</sup> 70.7	7.6	52.0	3.7
242622	Rough, surfaced, or semifabricated hardwood furniture dimension and dimension stock.....	Million bd. ft..	<sup>e</sup> 49.7	17.8	40.8	8.1
251261	Furniture frames, wood.....		(X)	60.8	(X)	45.1
	Foam cores for mattresses (excluding topper pads):					
306933	Rubber.....	1,000 units.....	(NA)	■.6	(S)	1.3
307922	Polyurethane.....	...do.....	(NA)	6.8	(S)	2.0
	Formed and slab stock for pillows, cushions, seating, etc.:					
306931	Rubber.....	Million lbs.....	<sup>e</sup> (NA)	26.4	35.8	20.8
307921	Polyurethane.....	...do.....	<sup>e</sup> 40.3	23.4	36.8	27.3
229308	Paddings and fillings, except rubber, and plastic foam.....	...do.....	(NA)	12.0	(S)	9.4
209131	Cotton linters (net weight).....	...do.....	54.3	9.2	60.4	9.2
348138	Springs, innerspring units, and box spring constructions.....	1,000 short tons.	(NA)	18.2	(S)	18.1
348135	Constructions for dual-purpose sleep furniture.....		(X)	4.3	(X)	4.5
285110	Paints, varnishes, lacquers, japans, and enamels.....	Million gal.....	(NA)	4.3	1.8	3.4
342901	Furniture and builders' hardware, including cabinet hardware, casters, gliders, handles, hinges, locks, etc.....		(X)	15.4	(X)	9.3
229508	Coated or laminated fabric (for upholstery).....	Million lin. yds.	<sup>e</sup> 18.2	23.3	9.0	13.4
307931	Plastic laminated sheets.....		(X)	3.7	(X)	4.5
	Woven upholstery fabrics, (excluding ticking and muslin):					
221161	Cotton.....	Million lin. yds.	(NA)	69.2	20.5	34.2
222103	Other (rayon, nylon, etc.).....	...do.....	<sup>e</sup> 33.9	73.4	45.7	80.5
970099	All other materials and components, containers, and supplies consumed, n.e.c.....		(X)	80.9	(X)	58.6
971000	All other materials and components, parts, containers, and supplies, n.s.k.....		(X)	54.5	(X)	68.8

<sup>e</sup> From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error  
of estimate or on the basis of a consistency review.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2512, these small establishments accounted for approximately 2.0 percent of payrolls and 2.3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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**OFFICIAL BUSINESS**

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Metal household furniture

SIC Code 2514

The Metal Household Furniture Industry includes establishments primarily engaged in manufacturing metal household furniture of a type commonly used in dwellings, whether padded or plain. Establishments primarily engaged in manufacturing dual purpose sleep furniture, such as studio couches, sofa beds, and chair beds, are classified in industry 2515, regardless of the material used in the frame.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Metal Household Furniture Industry amounted

to \$618.2 million, an increase of 18.0 percent compared with 1963. Value added by manufacture at \$299.6 million in 1967 was 21.3 percent more than value added in 1963. Average employment in the industry showed an increase of 6.5 percent from 1963 to a total of 31.2 thousand employees in 1967.

Of the \$618.2 million total value of shipments and other receipts of establishments classified as metal household furniture, \$45.6 million were products primary to other industries; and \$18.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 89 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2514.--METAL HOUSEHOLD FURNITURE														
1967 Census....	487	252	31.2	157.2	26.0	50.5	111.1	299.6	316.9	618.2	9.7	86.6	89	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	31.3	150.8	25.7	51.6	106.3	289.4	310.3	595.3	13.8	87.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	31.2	143.6	25.9	51.0	102.6	285.0	302.3	583.3	9.9	79.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	31.1	141.3	25.9	51.4	102.0	258.3	307.0	564.8	8.9	75.9	(NA)	(NA)
1963 Census....	517	244	29.3	128.8	24.3	47.9	92.0	247.0	280.7	524.3	6.8	69.9	88	89
1962 ASM <sup>1</sup> .....	(NA)	(NA)	28.9	127.3	24.3	47.9	89.8	222.5	275.9	498.4	9.1	62.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	29.7	131.7	24.8	48.9	92.9	216.9	278.4	496.7	6.2	67.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	31.7	134.3	26.5	52.7	95.5	228.8	288.3	519.1	6.7	71.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	32.5	137.5	27.4	54.6	99.7	239.0	310.4	548.1	6.8	75.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	626	272	30.3	124.6	24.6	48.2	89.2	218.7	274.7	496.1	6.3	71.2	88	88

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of metal household furniture products shipped by all producers in 1967 was \$579.5 million of which \$533.9 million, or 92 percent, were shipped by plants classified in industry 2514, Metal Household Furniture, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 89 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in table 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2514.--METAL HOUSEHOLD FURNITURE													
United States, total.....	487	252	31.2	157.2	26.0	50.5	111.1	299.6	316.9	618.2	9.7	29.3	247.0
Northeast.....	189	87	8.3	40.3	7.1	13.4	29.7	71.3	76.9	147.3	2.5	7.8	61.0
Connecticut.....	7	3	0.2	1.0	0.1	0.3	0.7	1.8	0.9	2.7	(Z)	(D)	(D)
East North Central....	87	57	8.2	47.2	6.4	12.3	31.7	92.3	96.8	190.1	3.6	9.1	84.3
Ohio.....	14	7	1.6	8.5	1.2	2.3	6.3	16.9	24.6	42.0	0.4	2.3	20.2
Illinois.....	47	31	4.0	23.5	3.2	6.3	15.6	42.5	42.1	84.9	(D)	3.6	31.1
West North Central....	9	4	0.5	2.5	0.5	0.9	2.0	4.6	5.2	9.8	0.2	0.7	5.3
South Atlantic.....	76	39	4.4	20.1	3.8	8.0	14.7	38.7	43.2	83.4	1.2	4.3	29.4
Maryland.....	8	4	0.2	1.1	0.2	0.4	0.7	1.9	2.5	4.4	0.1	0.2	0.9
North Carolina.....	17	13	1.4	6.1	1.3	2.6	4.8	13.2	14.3	27.6	0.4	0.9	7.4
Florida.....	34	11	0.7	2.6	0.6	1.1	2.0	4.8	4.6	9.4	0.1	0.8	5.5
East South Central....	25	18	4.7	19.8	4.0	8.0	14.6	43.5	48.7	91.4	1.2	3.2	25.0
Kentucky.....	7	5	1.3	5.7	1.1	2.1	3.9	11.4	15.7	27.2	0.4	(D)	(D)
Alabama.....	9	6	0.8	3.8	0.7	1.5	2.8	6.1	6.3	12.3	0.2	0.6	4.9
West South Central....	20	13	1.7	7.2	1.5	2.7	5.2	13.0	14.4	28.1	0.3	1.2	8.8
West.....	81	34	3.4	20.1	2.7	5.3	13.3	36.1	31.7	68.1	0.7	3.3	33.3
California.....	71	30	3.2	18.5	2.5	5.0	12.2	33.8	29.8	63.9	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2514- --	METAL HOUSEHOLD FURNITURE, TOTAL.....	(X)	579.5	(X)	507.7
25141 --	Metal household dining, and breakfast furniture, total.....	(X)	163.2	(X)	141.2
	Tubular metal, including chairs whether padded or plain:				
25141 11	Sets (table and chairs).....	2,478	143.4	2,294	115.1
25141 15	Tables (not sold with a set).....	128	3.8	175	4.6
25141 17	Chairs (not sold with a set).....	803	6.3	1,633	10.1
25141 98	Other metal dining, dinette, and breakfast furniture.....	(X)	2.7	(X)	2.3
25141 00	Metal dining, dinette, and breakfast furniture, n.s.k.....	(X)	7.0	(X)	9.2
25142 --	Metal kitchen furniture, total.....	(X)	56.2	(X)	62.8
	Kitchen furniture, excluding breakfast furniture reported as "dining, dinette, and breakfast furniture":				
25142 11	Cabinets, such as base, top and base, wall, utility, etc.....	(X)	33.6	(X)	45.7
25142 51	Chairs and stools, padded and plain.....	1,873	13.5	1,855	9.1
25142 71	Tables, including hostess carts.....	938	6.3	1,573	6.9
25142 00	Metal kitchen furniture, n.s.k.....	(X)	2.8	(X)	1.0
25143 --	Metal porch, lawn, and outdoor furniture, total.....	(X)	105.9	(X)	101.2
	Tubular aluminum:				
25143 12	Chairs, rockers, benches, chaise lounges and settees.....	17,817	66.3	14,817	65.6
25143 14	Other tubular aluminum porch, lawn, and outdoor furniture, including gliders, swings, and hammocks.....	(X)	12.6	(X)	5.6
	Cast and wrought iron:				
25143 22	Chairs, rockers, benches, chaise lounges and settees.....	(NA)	8.7	514	9.5
25143 24	Other cast and wrought iron porch, lawn, and outdoor furniture, including gliders, swings and hammocks.....	(X)	5.0	(X)	10.3
25143 98	Other metal porch, lawn, and outdoor furniture.....	(X)	9.2	(X)	6.1
25143 00	Metal porch, lawn and other outdoor furniture, n.s.k.....	(X)	4.1	(X)	4.2
25144 --	Other metal household furniture, total.....	(X)	205.1	(X)	184.0
25144 33	Folding cots and rollable cots, including army cots, and other metal beds.....	3,899	32.5	1,212	9.9
25144 37	Metal bed frames (complete metal bed frames, sold separately, with or without a headboard).....	3,478	19.9	4,519	23.1
25144 55	Upholstered metal household furniture.....	(X)	5.5	(X)	11.5
	Miscellaneous metal household furniture:				
25144 71	Card tables and chairs.....	(X)	27.1	(X)	26.0
25144 75	Medicine cabinets, including "wall type" and "insert type".....	3,806	31.6	4,102	33.1
25144 91	Metal radio, phonograph, TV, and Hi-Fi cabinets.....	680	6.9	842	6.5
25144 93	Infants' and children's metal furniture (including highchairs and tables).....	4,273	30.0	2,996	26.0
25144 95	Metal folding tray tables.....	3,762	12.0	8,530	17.2
25144 98	Other metal household furniture.....	(X)	35.6	(X)	26.2
25144 00	Other metal household furniture, n.s.k.....	(X)	4.0	(X)	4.4
25140 00	Metal household furniture, n.s.k... (For companies with 10 or more employees. See Note.).....	(X)	41.5	(X)	18.5
25140 02	Metal household furniture, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	7.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2514.--METAL HOUSEHOLD FURNITURE					
	Materials, parts, containers, and supplies, total.....		(X)	300.6	(X)	266.2
	Mill shapes and forms (except castings):					
	Carbon steel:					
331012	Sheet and strip.....	1,000 short tons.	296.5	45.2	235.0	37.6
331019	All other carbon steel mill shapes and forms, including tubing.....	1,000 short tons.	(NA)	24.7	108.4	23.2
331020	Alloy steel (except stainless).....	...do.....	(NA)	3.2	(S)	3.6
331031	Stainless steel.....	...do.....	(NA)	3.7	1.5	1.6
	Aluminum and aluminum-base alloy mill shapes and forms:					
335202	Sheet, plate, and foil.....	Million lbs.....	<sup>e</sup> 23.9	9.6	12.9	4.9
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc.....	...do.....	(NA)	15.6	31.8	11.2
335209	All other aluminum mill shapes and forms (wire, rolled, rod and bar, powder, welded, tubing, etc.).....	...do.....	<sup>e</sup> 23.3	9.3	32.9	14.8
348138	Springs, innerspring units, and box spring constructions.....	1,000 short tons.	(NA)	1.2	(S)	1.4
285101	Paints, varnishes, lacquers, japans, and enamels.....	Million gal.....	(NA)	5.9	1.7	5.3
342901	Furniture and builders' hardware, including cabinet hardware, casters, gliders, handles, hinges, locks, etc.....	Million sq. yds..	(X)	13.3	(X)	10.1
307911	Unsupported plastic film and sheets, excluding packaging materials.....	Million sq. yds..	(NA)	7.5	(S)	3.8
307931	Plastic laminated sheets.....	.....	(X)	11.4	(X)	12.1
229508	Coated or laminated fabric for upholstery.....	Million lin. yds.	<sup>e</sup> 15.0	12.0	8.8	9.1
249930	Particleboard.....	Million sq. ft. 3/4" basis.....	<sup>e</sup> 58.9	8.9	38.8	6.6
265011	Paperboard boxes and containers, including folding, corrugated and setup boxes.....	.....	(X)	17.2	(X)	14.8
321101	Flat glass (plate and sheet).....	Million sq. ft...	(NA)	4.2	5.9	3.5
970099	All other materials and components, parts, containers, and supplies consumed, n.e.c.....	.....	(X)	85.5	(X)	74.4
971000	All other materials, components, parts, containers, and supplies, n.s.k.....	.....	(X)	22.2	(X)	28.1

<sup>e</sup>From 10 to 30 percent of this figure was estimated.

(NA) Not available.

n.s.k. Not specified by kind.

(X) Not applicable.

(S) Withheld because the estimate did not meet publication standard, either on the basis of the associated standard error of estimate or on the basis of a consistency review.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2514, these small establishments accounted for approximately 1.1 percent of payrolls and 1.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

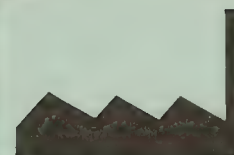
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**OFFICIAL BUSINESS**

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-25A-4

## INDUSTRY SERIES

**preliminary  
report**

### Mattresses and bedsprings

SIC Code 2515

The Mattresses and Bedsprings Industry includes establishments primarily engaged in manufacturing innerspring mattresses, box spring mattresses, and noninnerspring mattresses containing felt, foam rubber, or any other filling material; and assembled wire springs (fabric, coil, or box) for use on beds, couches and cots. This industry also includes establishments primarily engaged in manufacturing dual purpose sleep furniture, such as studio couches, sofa beds, and chair beds regardless of the material used in the frame. Establishments primarily engaged in manufacturing automobile seats and backs are classified in industry 2531; individual wire springs in industry 3481; and padding and upholstery filling in industry 2293.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Mattresses and Bedsprings Industry amounted to \$742.7 million, an increase of 16 percent compared with 1963. Value added by manufacture at \$334.2 million in 1967 was 17 percent more than value added in 1963. Average employment in the industry showed an increase of 3.3 percent from 1963 to a total of 31.1 thousand employees in 1967.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2512.--MATTRESSES AND BEDSPRINGS													
1967 Census....	1,012	340	31.1	170.7	24.3	47.6	110.4	334.2	407.7	742.7	10.3	83.1	91	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	32.2	170.4	25.1	49.7	109.9	335.6	405.3	735.6	*8.7	86.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	31.9	165.8	24.6	48.9	106.7	324.8	395.8	720.9	10.1	73.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	30.4	153.5	23.1	45.9	99.7	296.7	367.7	662.6	*5.1	75.9	(NA)	(NA)
1963 Census....	1,120	340	30.1	146.3	23.0	45.8	94.6	285.5	358.0	641.0	7.3	73.5	90	90
1962 ASM <sup>1</sup> .....	(NA)	(NA)	31.5	148.7	23.9	47.3	95.7	263.9	377.0	640.6	*5.9	73.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	30.2	136.3	22.7	45.4	88.6	239.7	350.1	587.7	*5.9	73.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	30.5	138.8	23.4	46.0	88.9	242.2	344.6	579.0	*4.7	70.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	32.6	142.9	25.3	50.6	96.2	253.8	358.7	614.9	4.5	65.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,215	377	31.7	132.3	24.7	47.9	88.2	248.8	322.0	572.1	7.3	69.8	90	88

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
**Rocco C. Siciliano**, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

Of the \$742.7 million total value of shipments and other receipts of establishments classified in the Mattresses and Bedsprings Industry, \$61.0 million were products primary to other industries; and \$31.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 91 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

The total value of mattresses and bedsprings shipped by all producers in 1967 was \$708.8

million of which \$650.5 million, or 92 percent, were shipped by plants classified in industry 2515, Mattresses and Bedsprings, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 90 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2515, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Report series:

M25E, Mattresses and Bedsprings.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2515.--MATTRESSES AND BEDSPRINGS												
United States, total.....	1,012	340	31.1	170.7	24.3	47.6	110.4	334.2	407.7	742.7	10.3	30.1	285.5
New England.....	68	26	1.9	10.1	1.5	3.0	6.4	19.3	26.7	45.8	0.5	1.9	17.8
New Hampshire.....	4	2	0.1	0.5	0.1	0.2	0.3	0.8	1.1	1.9	(D)	0.1	0.7
Massachusetts.....	39	15	1.0	5.0	0.8	1.4	3.3	10.3	14.1	24.2	0.2	1.1	10.3
Connecticut.....	14	7	0.7	4.1	0.6	1.2	2.5	7.4	10.4	17.8	0.2	0.6	6.0
Middle Atlantic.....	192	59	5.1	29.3	4.0	7.5	19.3	59.3	67.5	126.9	1.7	5.2	55.7
New York.....	112	29	2.0	11.5	1.6	3.1	7.2	21.7	26.6	48.3	0.4	2.3	21.8
New Jersey.....	36	14	2.0	11.7	1.6	2.9	8.3	25.8	24.2	50.1	(D)	2.0	24.6
Pennsylvania.....	44	16	1.1	6.1	0.8	1.5	3.7	11.8	16.8	28.5	(D)	0.9	9.4
East North Central....	141	55	7.0	40.4	5.4	10.7	26.6	74.9	84.1	158.9	2.3	6.6	65.4
Ohio.....	33	14	1.8	10.7	1.5	3.1	8.3	23.3	26.9	50.4	0.5	1.8	21.0
Indiana.....	23	11	2.5	13.8	1.8	3.6	9.0	23.0	23.4	46.3	0.5	2.2	21.2
Illinois.....	43	19	2.1	12.5	1.5	3.0	7.2	21.5	25.3	46.5	1.2	(D)	(D)
Michigan.....	34	9	0.6	2.8	0.5	0.8	1.9	5.9	7.2	13.1	0.1	(D)	(D)
Wisconsin.....	8	2	0.1	0.5	0.1	0.2	0.3	1.2	1.4	2.6	(Z)	(D)	(D)
West North Central....	77	24	2.5	14.9	2.0	4.0	9.2	28.6	36.7	65.3	1.3	2.5	24.2
Minnesota.....	13	7	0.7	4.9	0.5	1.1	2.9	7.9	9.2	17.0	0.1	0.5	5.0
Kansas.....	16	8	0.9	4.6	0.8	1.5	3.4	9.7	10.7	20.6	(D)	0.6	6.0
South.....	345	109	9.7	47.0	7.7	15.1	29.7	95.8	122.6	219.4	3.0	9.1	72.6
Florida.....	47	13	1.0	4.2	0.8	1.5	2.8	9.1	12.5	21.6	0.2	0.9	8.2
Alabama.....	20	5	0.3	1.6	0.3	0.5	1.0	3.2	3.9	7.1	(D)	0.3	2.2
West South Central....	125	32	2.2	10.7	1.8	3.4	7.2	24.1	31.6	55.8	0.6	(D)	(D)
Arkansas.....	13	2	0.1	0.4	0.1	0.2	0.3	0.9	1.5	2.4	(D)	0.1	0.7
Louisiana.....	21	5	0.2	1.0	0.2	0.3	0.6	1.7	2.7	4.4	0.1	0.2	1.2
Oklahoma.....	15	3	0.1	0.6	0.1	0.2	0.4	1.5	2.1	3.5	(D)	0.1	0.9
Texas.....	76	22	1.7	8.7	1.4	2.7	6.0	20.0	25.3	45.4	0.5	1.7	15.8
Mountain.....	47	13	0.8	3.9	0.6	1.3	2.5	6.8	10.4	17.0	0.1	0.7	5.4
Colorado.....	8	5	0.2	1.5	0.2	0.4	0.7	2.1	4.5	6.5	-	0.2	2.1
Arizona.....	16	5	0.3	1.3	0.2	0.4	0.9	2.5	2.9	5.4	(D)	0.2	1.6
Utah.....	8	2	0.2	0.7	0.2	0.3	0.6	1.5	2.0	3.5	(D)	0.2	0.7
Pacific.....	142	54	4.0	25.3	3.1	6.1	16.6	49.6	59.6	109.2	1.5	4.0	44.3
Washington.....	15	6	0.3	2.0	0.3	0.5	1.2	4.1	5.7	9.8	0.1	0.3	2.7
California.....	113	40	3.4	21.5	2.6	5.1	14.3	41.3	48.5	89.9	1.1	3.4	38.6
Hawaii.....	6	3	0.1	0.7	0.1	0.2	0.4	1.2	1.7	2.9	(D)	0.2	1.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2515- --	MATTRESSES AND BEDSPRINGS, TOTAL <sup>1</sup> .....	(X)	708.8	(X)	608.7
25151 --	Innerspring mattresses, other than crib size.....	(X)	240.8	(X)	216.2
25151 15	Innerspring mattresses, other than crib size, including those with polyurethane or rubber topper pads and those sold as part of hollywood beds.....	8,808	240.4	8,251	198.7
25151 00	Innerspring mattresses, n.s.k.....	(X)	0.4	(X)	17.5
25152 --	Other mattresses, including crib mattresses <sup>2</sup> .....	(X)	57.5	(X)	68.3
25152 01	Spring cushions (excluding air-cooled auto seat cushions) <sup>3</sup> .....	(NA)	0.6	4,207	6.8
25152 11	Crib mattresses, all types, including crib size mattresses made <sup>2</sup> with innersprings, polyurethane, latex foam, hair, cotton felt, etc....	1,467	11.7	1,436	11.1
25152 31	Latex foam core mattresses, other than crib size <sup>2</sup> .....	552	21.6	442	18.4
25152 37	Polyurethane foam core mattresses, other than crib size <sup>2</sup> .....	871	17.1	773	15.1
25152 45	Other mattresses including those made of cotton felt, hair, etc <sup>2</sup> .....	518	6.0	2,443	9.1
25152 00	Other mattresses, n.s.k.....	(X)	0.5	(X)	7.8
25153 --	Bedsprings.....	(X)	178.0	(X)	157.3
25153 11	Box springs, including those sold with or without legs as parts of hollywood beds.....	6,834	170.2	6,409	145.2
25153 44	Coil springs and flat springs, including springs for bunk beds but excluding crib springs.....	565	4.6	770	6.4
25153 71	Hospital bedsprings, all types, including hospital bedsprings, manual or motorized, shipped as such by this establishment (excluding bedsprings incorporated at the location into hospital beds).....	58	2.0	25	1.0
25153 00	Bedsprings, n.s.k.....	(X)	1.2	(X)	4.6
25154 --	Convertible sofas.....	(X)	103.1	(X)	82.3
25154 21	From purchased mattresses, including interplant transfers.....	452	58.1	368	47.6
25154 31	From mattresses produced at this location.....	291	43.6	246	30.8
25154 00	Convertible sofas, n.s.k.....	(X)	0.6	(X)	3.9
25155 21	Jackknife sofa beds and chair beds (back lowers to seat level by means of jackknife hinge and forms half the sleeping surface).....	729	35.7	771	38.8
25156 11	Studio couches.....	233	15.0	322	17.6
25150 00	Mattresses and bedsprings, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	51.9	(X)	28.4
25150 02	Mattresses and bedsprings, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	27.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Estimates of monthly shipments of mattresses and bedsprings have been published since 1957 in Current Industrial Reports M25E, Mattresses and Bedsprings.

<sup>2</sup>For 1963 all crib mattresses made of latex foam, urethane foam or cotton felt were combined with adult size mattresses made of the same materials; crib size mattresses made with innersprings were reported separately. Beginning with 1967, respondents were requested to separate shipments of all crib mattresses from adult size mattresses made of the same materials. Thus, totals shown for these items for 1967 are not comparable to the figures reported on these lines for 1963.

<sup>3</sup>For 1963, the figure shown for spring cushions includes shipments of air-cooled auto seat cushions.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2515.--MATTRESSES AND BEDSPRINGS					
	Materials, parts, containers, and supplies, total.....		(X)	379.6	(X)	333.9
251261	Furniture frames, wood.....		(X)	14.0	(X)	10.4
242622	Rough, surfaced or semifabricated hardwood furniture dimension and dimension stock.....	Million bd. ft....	<sup>e</sup> 57.2	5.5	(S)	3.0
	Carbon steel, including wrought iron mill shapes and forms:					
331012	Sheet and strip.....	1,000 short tons..	42.5	8.2	38.5	7.0
331019	All other carbon steel mill shapes and forms, including tubing.....	...do.....	20.3	3.7	31.4	6.0
348138	Springs, innerspring units and box spring constructions.....	...do.....	<sup>e</sup> 168.6	70.2	164.5	58.8
348135	Constructions for dual-purpose sleep furniture.....		(X)	5.6	(X)	6.5
	Woven upholstery fabrics, excluding ticking and muslin:					
221161	Cotton.....	Million lin. yds..	<sup>e</sup> 9.4	12.3	8.1	10.9
222103	Other (rayon, nylon, etc.).....	Million lin. yds..	<sup>e</sup> 5.2	6.8	4.8	7.4
221141	Ticking (mattress).....	...do.....	<sup>e</sup> 97.8	53.3	91.1	46.2
209131	Cotton linters (net weight).....	Million lbs.....	<sup>e</sup> 246.1	21.1	240.0	18.3
229308	Paddings and fillings, except rubber and plastic foam.....	...do.....	<sup>e</sup> 106.3	17.3	112.1	18.0
	Foam cores for mattresses, excluding topper pads:					
306933	Rubber.....	1,000 units.....	<sup>e</sup> 576.6	13.6	444.4	10.6
307922	Polyurethane.....	...do.....	(NA)	12.0	970.7	9.1
229508	Coated or laminated fabric for upholstery.....	Million lin. yds..	<sup>e</sup> 1.8	1.7	}	(X)
970099	All other materials and components, parts, containers, and supplies consumed, n.e.c.....		(X)	85.7		
970000	All other materials and components, parts, containers, and supplies, n.s.k.....		(X)	48.6	(X)	54.1

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.  
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2515, these small establishments accounted for approximately 3.0 percent of payrolls and 3.5 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-25A-5

## INDUSTRY SERIES

**preliminary  
report**

### Household furniture, n.e.c.

SIC Code 2519

The Household Furniture, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing reed, rattan and other wicker furniture, and household furniture, not elsewhere classified.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Household Furniture, N.E.C., Industry amounted to \$64.9 million, an increase of 124.6 percent compared with 1963. Value added by manufacture at \$35.1 million in 1967 was 132.5

percent more than value added in 1963. Average employment in the industry showed an increase of 71.4 percent from 1963 to a total of 3.6 thousand employees in 1967.

Of the \$64.9 million total value of shipments and other receipts of establishments classified in the Household Furniture, N.E.C., Industry, \$31.4 million were products primary to other industries; and \$3.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 77 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 84 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2519.—HOUSEHOLD FURNITURE, N.E.C.													
1967 Census....	79	36	3.6	18.9	3.1	6.4	13.9	35.1	29.2	64.9	4.6	8.5	77	78
1966 ASM <sup>1</sup> .....	(NA)	(NA)	4.6	22.3	4.0	8.1	15.5	41.4	37.8	78.2	*5.9	8.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	3.3	16.5	2.8	5.8	11.1	29.0	23.7	52.1	*5.0	5.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	2.2	10.0	1.8	3.9	6.8	18.1	15.9	34.0	*0.7	3.9	(NA)	(NA)
1963 Census....	75	30	2.1	8.4	1.7	3.4	5.9	15.1	13.8	28.9	0.6	3.7	84	51
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*1.2	*5.2	*1.0	*1.9	*3.7	*10.2	*8.8	*19.3	(Z)	*2.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*1.2	*5.0	*1.1	*2.2	*3.6	*10.7	*11.3	*22.1	(Z)	*5.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*1.6	*6.5	*1.4	*2.5	*4.7	*14.3	*13.5	*27.6	(Z)	*5.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*1.9	*7.9	*1.6	*3.3	*5.9	*16.4	*17.7	*34.1	(Z)	*5.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	93	32	2.2	8.4	1.8	3.4	6.4	16.2	14.5	30.6	0.7	4.7	84	68

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. (Z) Less than \$50 thousand.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 8 and 5, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of household furniture, n.e.c., shipped by all producers in 1967 was \$78.7 million of which \$61.4 million, or 78 percent, were shipped by plants classified in industry 2519, Household Furniture, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 51 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2519.—HOUSEHOLD FURNITURE N.E.C.												
United States, total.....	79	36	3.6	18.9	3.1	6.4	13.9	35.1	29.2	64.9	4.6	2.1	15.1
Northeast.....	20	13	1.0	5.2	0.8	1.9	3.9	12.2	9.0	21.5	0.2	0.9	7.6
East North Central....	9	5	1.2	6.9	1.0	2.1	5.0	9.6	9.6	19.5	(D)	(D)	(D)
South.....	24	10	0.9	4.0	0.8	1.6	2.9	7.8	6.1	13.8	(D)	0.5	2.7
Florida.....	5	5	0.3	1.4	0.3	0.5	1.0	2.7	2.0	4.7	(Z)	0.3	1.5
West.....	25	8	0.5	2.9	0.4	0.9	2.0	5.5	4.4	10.0	0.1	0.3	2.6
California.....	19	7	0.5	2.5	0.4	0.8	1.8	5.2	4.1	9.4	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 units)	Value (million dollars)	Quantity (1,000 units)	Value (million dollars)
2519- --	HOUSEHOLD FURNITURE, N.E.C.....	(X)	78.7	(X)	46.9
25190 11	Plastic cabinets, radio, phonograph, TV, Hi-Fi, and combinations thereof.....	(NA)	30.6	12,674	17.4
25190 32	Reed and rattan furniture, including willow, wicker, and cane.....	(X)	11.2	(X)	8.8
25190 98	Other household furniture, including plastic furniture.....	(X)	28.2	(X)	16.9
25190 00	Other household furniture, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	7.9	(X)	3.8
25190 02	Other household furniture, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	0.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2519, these small establishments accounted for approximately 1.0 percent of payrolls and 1.1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

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In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE**  
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BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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**OFFICIAL BUSINESS**

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

## Wood office furniture

SIC Code 2521

preliminary  
report

The Wood Office Furniture Industry includes establishments primarily engaged in manufacturing wood office furniture, whether padded, upholstered or plain.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Wood Office Furniture Industry amounted to \$161.5 million, an increase of 59 percent compared with 1963. Value added by manufacture at \$90.5 million in 1967 was 59 percent more than value added in 1963. Average employment in the industry showed an increase of

28 percent from 1963 to a total of 8.3 thousand employees in 1967.

Of the \$161.5 million total value of shipments and other receipts of establishments classified as wood office furniture, \$16.7 million were products primary to other industries; and \$1.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 89 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

The total value of wood office furniture shipped by all producers in 1967 was \$158.7 million of which \$142 million, or 89 percent, were shipped

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expend- itures, new (million dollars)	End-of- year inventories (million dollars)	Special- ization ratio (per- cent)	Coverage ratio (per- cent)
	Total	With 20 employ- ees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2521.--WOOD OFFICE FURNITURE													
1967 Census....	179	70	8.3	47.2	7.0	14.5	36.1	90.5	73.2	161.5	5.7	27.3	89	89
1966 ASM <sup>1</sup> .....	(NA)	(NA)	7.8	42.6	6.6	13.5	31.6	74.6	62.6	136.4	3.5	21.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	7.5	38.3	6.3	13.1	28.8	68.1	55.2	122.9	2.2	19.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	6.7	32.7	5.7	11.9	25.5	58.7	51.2	109.3	1.3	18.8	(NA)	(NA)
1963 Census....	138	58	6.5	30.6	5.6	11.8	23.7	57.0	45.3	101.5	1.5	17.1	90	87
1962 ASM <sup>1</sup> .....	(NA)	(NA)	6.3	29.6	5.4	11.6	23.0	48.6	37.6	85.2	3.2	14.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	5.9	27.1	5.0	10.6	20.5	45.3	35.7	80.5	1.7	13.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	6.1	26.5	5.2	10.9	20.4	43.5	35.4	78.2	0.6	13.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	6.1	26.0	5.3	10.9	20.2	43.2	33.7	76.2	0.9	12.5	(NA)	(NA)
1958 Census <sup>2</sup> ....	150	56	5.8	23.5	5.0	10.0	17.6	38.4	29.5	68.4	0.8	11.4	89	82

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

by plants classified in industry 2521, Wood Office Furniture, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 87 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2521, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-25 H, Manufacturers' Shipments of Office Furniture



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2521.--WOOD OFFICE FURNITURE												
United States, total.....	179	70	8.3	47.2	7.0	14.5	36.1	90.5	73.2	161.5	5.7	6.5	57.0
Northeast.....	57	20	2.3	14.2	1.9	3.8	10.8	24.9	23.3	47.9	0.8	2.2	18.7
New York.....	37	12	1.2	8.3	1.0	2.0	6.1	13.7	9.0	22.8	(D)	1.1	10.1
North Central.....	37	21	2.8	16.6	2.3	4.9	12.8	29.6	20.6	49.5	1.6	2.3	20.3
Illinois.....	5	1	0.1	0.5	0.1	0.2	0.4	0.9	0.6	1.5	(Z)	(D)	(D)
South.....	44	18	2.6	12.3	2.2	4.7	9.5	26.9	24.0	49.8	3.0	1.7	14.6
South Atlantic.....	22	10	1.9	9.7	1.7	3.6	7.4	20.0	17.4	36.1	2.8	(D)	(D)
West.....	41	11	0.7	4.1	0.6	1.1	3.0	9.1	5.3	14.3	0.3	0.3	3.4
California.....	36	10	0.6	3.9	0.5	1.0	2.9	8.6	5.1	13.6	(D)	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$500 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2521- --	WOOD OFFICE FURNITURE, TOTAL.....		(X)	158.7	(X)	100.4
25210 11	Chairs, including upholstered.....	1,000 units...	1,348.0	55.7	808.5	35.3
25210 21	Sofas, couches, settees, stools, etc., including upholstered (except factory and institutional).....	...do.....	<sup>e</sup> 43.5	8.4	43.7	5.1
	Desks (including modular unit desks):					
25210 32	Executive type.....	...do.....	<sup>e</sup> 145.0	24.5	111.3	15.5
25210 33	Clerical and secretarial with or without typewriter mechanism..	...do.....	<sup>e</sup> 170.1	17.4	156.1	15.1
25210 39	Modular service units (except desks) including "L" and "U" returns, desk extensions, stand attachments, platforms, etc.....	...do.....	<sup>e</sup> 167.0	13.2	107.4	6.1
25210 98	Other wood office furniture, including tables, credenzas, file cabinets, bookcases, storage cabinets, costumers, etc.....	.....	(X)	26.6	(X)	17.2
25210 00	Wood office furniture, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	10.0	(X)	6.1
25210 02	Wood office furniture, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	2.9	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2521.--WOOD OFFICE FURNITURE					
	Materials, parts, containers, and supplies, total.....		(X)	69.6	(X)	40.4
242101	Hardwood lumber, rough and dressed.....	Million bd. ft...	67.3	12.6	43.5	7.1
242103	Softwood lumber, rough and dressed.....	..do.....	6.6	0.8	2.0	0.2
243250	Hardwood veneer.....	Million sq. ft. (surf. meas.)...	59.6	2.8	48.4	2.5
243210	Hardwood plywood.....	..do.....	8.7	6.1	5.9	2.4
243203	Softwood plywood.....	Million sq. ft. (3/8" basis)....	(S)	0.8	2.0	0.1
249930	Particleboard.....	Million sq. ft. (3/4" basis)....	8.5	1.9	2.7	0.7
249960	Hard pressed wood fiberboard.....	Million sq. ft. (1/8" basis)....	2.2	0.2	0.5	0.1
342901	Furniture and builders' hardware, including cabinet hardware, casters, gliders, handles, hinges, locks, etc.....		(X)	8.7	(X)	4.2
	Mill shapes and forms (except castings):					
	Carbon steel (including wrought iron):					
331012	Sheet and strip.....	1,000 short tons.	9.9	2.8	(NA)	0.1
331019	All other carbon steel mill shapes and forms (including tubing).....	..do.....	(S)	1.5	(S)	0.7
285101	Paints, varnishes, lacquers, japans, and enamels.....	Million gals.....	0.7	1.6	0.5	1.2
307931	Plastic laminated sheets.....		(X)	2.7	(X)	1.4
229508	Coated or laminated fabric (for upholstery).....	Million lin. yds.	1.1	2.7	0.7	1.1
265011	Paperboard boxes and containers, including folding, corrugated, and setup boxes.....		(X)	2.3	(X)	1.5
970099	All other materials and components, parts, containers, and supplies consumed, n.e.c.....		(X)	16.8	(X)	8.8
971000	Materials, components, parts, containers, and supplies, n.s.k. <sup>1</sup> .		(X)	5.3	(X)	8.4

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2521, these small establishments accounted for approximately 1.7 percent of payrolls and 1.8 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

## Metal office furniture

SIC Code 2522

preliminary  
report

The Metal Office Furniture Industry includes establishments primarily engaged in manufacturing of metal office furniture, whether padded or plain. Establishments primarily engaged in manufacturing safes and vaults are classified in industry 3492.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Metal Office Furniture Industry amounted to \$625.3 million, an increase of 60 percent compared with 1963. Value added by manufacture at \$390.3 million in 1967 was 71 percent

more than value added in 1963. Average employment in the industry showed an increase of 5 percent from 1963 to a total of 27.1 thousand employees in 1967.

Of the \$625.3 million total value of shipments and other receipts of establishments classified in the Metal Office Furniture Industry, \$59.7 million were products primary to other industries; and \$39.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 90 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 87 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2522.—METAL OFFICE FURNITURE														
1967 Census....	188	121	27.1	179.1	21.2	43.1	125.8	390.3	240.9	625.3	31.5	96.9	89	90
1966 ASM <sup>1</sup> .....	(NA)	(NA)	25.8	166.4	20.5	43.0	118.7	353.5	245.4	596.0	19.5	90.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	21.7	134.3	17.1	35.9	93.6	290.5	199.4	493.8	11.7	77.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	20.3	119.4	15.8	32.0	84.8	257.1	183.9	436.7	8.9	69.6	(NA)	(NA)
1963 Census....	170	107	19.9	112.1	15.8	31.5	81.4	228.3	160.1	390.0	14.2	67.2	87	89
1962 ASM <sup>1</sup> .....	(NA)	(NA)	18.8	101.6	15.0	29.1	74.5	216.8	152.8	362.1	10.7	60.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	17.4	92.0	13.8	27.4	67.2	199.3	130.1	329.3	6.2	54.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	18.5	97.3	14.9	29.7	71.8	209.0	137.6	343.4	9.8	57.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	17.7	92.0	14.2	28.0	67.2	200.8	122.2	322.7	5.6	53.6	(NA)	(NA)
1958 Census <sup>2</sup> ....	151	88	17.5	86.0	13.9	26.9	62.7	173.7	109.7	286.0	5.3	52.1	89	82

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

The total value of metal office furniture products shipped by all producers in 1967 was \$584.2 million of which \$525.8 million, or 90 percent, were shipped by plants classified in industry 2522, Metal Office Furniture, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 89 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2522, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-25H Manufacturers' Shipments of Office Furniture.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2522.--METAL OFFICE FURNITURE												
United States, total.....	188	121	27.1	179.1	21.2	43.1	125.8	390.3	240.9	625.3	31.5	19.9	228.3
Northeast.....	70	45	10.6	64.3	8.3	17.1	45.6	127.9	84.1	208.8	17.7	8.0	76.6
New York.....	36	23	4.4	26.4	3.4	6.9	18.4	56.3	32.8	86.9	13.1	3.7	33.1
North Central.....	58	37	11.7	88.7	9.0	18.2	62.0	193.1	119.0	309.7	9.2	9.2	123.6
Ohio.....	12	8	3.5	25.7	2.6	5.0	17.0	55.0	25.3	79.6	(D)	3.4	43.2
South.....	27	17	3.2	16.6	2.6	5.1	11.3	46.5	25.1	71.1	2.0	1.5	18.4
South Atlantic.....	15	9	2.2	10.7	1.7	3.5	7.5	32.8	15.3	48.0	0.7	(D)	(D)
West.....	33	22	1.6	9.5	1.3	2.6	6.9	22.8	12.7	35.6	2.7	1.2	9.8
California.....	31	20	1.5	9.0	1.2	2.5	6.5	22.1	12.2	34.3	(D)	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2522- --	METAL OFFICE FURNITURE, TOTAL.....	.....	(X)	584.2	(X)	356.2
25221 --	Metal office furniture, total.....	.....	(X)	133.6	(X)	73.6
25221 11	Chairs, including upholstered.....	1,000 units...	<sup>e</sup> 3,744.8	129.1	2,280.8	71.0
25221 51	Sofas, couches, settees, stools, etc., except factory and institutional, including upholstered.....	...do.....	(NA)	3.0	33.9	2.0
25221 00	Chairs and sofas, n.s.k.....	.....	(X)	1.5	(X)	0.6
25222 --	Desks.....	.....	(X)	150.6	(X)	88.3
25222 21	Executive type.....	1,000 units...	1,332.5	146.4	122.7	13.0
25222 31	Clerical and secretarial with or without typewriter mechanism...	...do.....		4.2	650.0	71.5
25222 00	Desks, n.s.k.....	.....		(X)	(X)	3.8
25223 --	Cabinets and cases, total.....	.....	(X)	200.2	(X)	141.3
	Vertical filing cabinets, noninsulated, nonmechanical, nonvisible; including security files:					
25223 11	Letter.....	1,000 units...	1,999.6	87.0	1,136.9	54.5
25223 14	Legal.....	...do.....	503.7	28.7	312.1	22.8
25223 16	Other (card, jumbo, ledger, document, ledger trays, transfer cases, computer tape and microfilm cabinets, etc.).....	...do.....	1,280.6	24.1	1,363.9	21.1
25223 19	Mechanical filing equipment (other than visible), letter, legal, card, etc., manually or electrically operated.....	...do.....	12.2	12.9	6.5	8.8
25223 23	Insulated filing cabinets (except safes including security files, insulated ledger trays and insulated computer tape and microfilm cabinets).....	...do.....	70.3	13.4	56.7	11.8
	Visible equipment (other than insulated), including vertical and rotary units:					
25223 24	Nonmechanical (include cabinets, reference panel type, chart boards, book type).....	.....	821.2	21.8	(S)	13.0
25223 26	Mechanical (include card size and reference type, manually or electrically operated).....	.....	(S)	10.6	(S)	7.2
25223 00	Cabinets and cases, n.s.k.....	.....	(X)	1.7	(X)	2.2
25224 --	Other metal office furniture, including tables, stands, etc., total.....	.....	(X)	86.4	(X)	50.2
25224 11	Tables and stands.....	1,000 units...	<sup>e</sup> 1,085.9	35.3	875.9	30.8
25224 21	Modular service units, (except desks) including "L" and "U" returns, desk extensions, stand attachments, platforms, etc....	...do.....	205.7	14.3	33.5	3.2
25224 98	Other metal office furniture, including bookcases, storage cabinets, costumers, etc.....	.....	(X)	36.8	(X)	16.3
25220 00	Metal office furniture, n.s.k. (For companies with 10 or more employees. See Note.).....	.....	(X)	12.4	(X)	2.7
25220 02	Metal office furniture, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	1.0	(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
INDUSTRY 2522—METAL OFFICE FURNITURE						
	Materials, parts, containers, and supplies, total.....		(X)	207.1	(X)	136.0
242101	Hardwood lumber, rough and dressed.....	Million bd. ft..	<sup>e</sup> 7.5	1.0	3.9	0.5
242103	Softwood lumber, rough and dressed.....	..do.....	<sup>e</sup> 7.9	0.7	1.7	0.2
243250	Hardwood veneer.....	Million sq. ft. (surf. meas.)..	(NA)	0.5	(S)	0.4
243210	Hardwood plywood.....	..do.....	<sup>e</sup> 1.7	0.6	1.4	0.5
243203	Softwood plywood.....	Million sq. ft. (3/8" basis)...	(NA)	0.4	(S)	0.2
249930	Particleboard....	Million sq. ft. (3/4" basis)...	<sup>e</sup> 2.4	0.6	0.9	0.2
342901	Furniture and builders' hardware, including cabinet hardware, casters, gliders, handles, hinges, locks, etc.....		(X)	22.5	(X)	18.0
	Mill shapes and forms (except castings):					
	Carbon steel (including wrought iron):					
331012	Sheet and strip.....	1,000 short tons	450.7	71.9	303.3	46.5
331019	All other carbon steel mill shapes and forms (including tubing).....	..do.....	<sup>e</sup> 31.3	6.5	20.5	4.5
331020	Alloy steel mill shapes and forms (except stainless).....	..do.....	<sup>e</sup> 33.1	3.1	11.4	1.6
331031	Stainless steel mill shapes and forms.....	..do.....	<sup>e</sup> 0.4	0.6	(S)	0.3
335208	Aluminum and aluminum-base alloy mill shapes and forms.....	Million lbs.....	<sup>e</sup> 7.9	4.8	4.4	2.6
285101	Paints, varnishes, lacquers, japans, and enamel.....	Million gals....	<sup>e</sup> 2.6	8.3	1.8	5.8
307931	Plastic laminated sheets.....		(X)	6.4	(X)	3.1
229508	Coated or laminated fabric (for upholstery).....	Million lin. yds	3.3	5.8	1.4	2.5
265011	Paperboard boxes and containers, including folding, corrugated and setup boxes.....		(X)	13.4	(X)	7.3
970099	All other materials and components, parts, containers, and supplies consumed, n.e.c.....		(X)	46.8	(X)	31.3
971000	Materials, components, parts, containers, and supplies, n.s.k....		(X)	13.2	(X)	10.5

<sup>e</sup> From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(X) Not applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error on the basis of a consistency review.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2522, these small establishments accounted for approximately 0.2 percent of payrolls and 0.8 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Public building furniture

SIC Code 2531

The Public Building and Related Furniture Industry includes establishments primarily engaged in manufacturing furniture for schools, theaters, assembly halls, churches and libraries. Establishments primarily engaged in manufacturing seats for public conveyances, as well as seats for automobiles and aircraft, are included in this industry. Establishments primarily engaged in manufacturing stone furniture are classified in industry 3281; and concrete furniture in industry 3272.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Public Building Furniture Industry amounted to \$418.8 million, an increase of 55.9 percent compared with 1963. Value added by manufacture at \$231.9 million in 1967 was 63.5 percent more than value added in 1963. Average employment in the industry showed an increase of 32.5 percent from 1963 to a total of 22.4 thousand employees in 1967.

Of the \$418.8 million total value of shipments and other receipts of establishments classified in the Public Building Furniture Industry, \$64.0 million were products primary to other industries; and \$22.2 million were receipts for miscellaneous

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2531.--PUBLIC BUILDING FURNITURE														
1967 Census....	438	188	22.4	131.2	17.4	35.9	88.4	231.9	194.1	418.8	10.0	86.2	84	85
1966 ASM <sup>1</sup> .....	(NA)	(NA)	18.5	101.4	14.4	30.0	71.3	186.2	164.1	343.5	8.3	67.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	17.9	95.6	13.8	29.4	66.1	165.7	153.6	312.8	6.4	61.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	16.8	86.6	13.4	27.5	60.3	145.9	142.4	284.4	*7.3	57.2	(NA)	(NA)
1963 Census....	429	164	16.9	83.4	13.3	26.8	57.4	141.8	127.9	268.6	4.4	53.8	88	85
1962 ASM <sup>1</sup> .....	(NA)	(NA)	17.9	84.7	14.4	29.5	58.3	149.2	133.8	284.4	4.5	51.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	17.2	83.4	14.2	28.4	56.4	134.0	134.1	267.6	*6.4	54.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	17.5	78.0	13.7	27.1	53.8	125.2	116.4	239.0	(S)	51.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	16.3	69.7	12.7	26.2	49.5	102.2	115.8	215.1	(S)	49.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	390	147	16.0	69.3	12.6	25.8	48.4	112.9	98.0	208.4	4.9	45.3	88	86

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

activities. The industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

The total value of public building furniture shipped by all producers in 1967 was \$386.5 million of which \$332.6 million, or 86 percent, were shipped by plants classified in industry 2531, Public Building Furniture, while the re-

mainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 85 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2531.--PUBLIC BUILDING FURNITURE												
United States, total.....	438	188	22.4	131.2	17.4	35.9	88.4	231.9	194.1	418.8	10.0	16.9	141.8
New England.....	23	7	1.0	5.7	0.8	1.6	3.8	10.2	7.9	18.2	1.2	0.7	5.1
Massachusetts.....	10	1	0.1	0.5	0.1	0.2	0.4	0.8	1.1	2.0	(Z)	(D)	(D)
Middle Atlantic.....	63	25	2.4	13.9	2.0	4.1	10.2	26.5	23.2	48.8	0.6	1.6	12.9
New York.....	26	6	0.8	5.2	0.6	1.3	3.9	12.9	8.8	20.7	0.1	0.6	5.6
New Jersey.....	6	2	0.1	0.9	0.1	0.2	0.7	1.2	1.1	2.3	(Z)	(D)	(D)
Pennsylvania.....	31	17	1.5	7.8	1.3	2.6	5.5	12.4	13.3	25.8	0.5	0.9	7.0
East North Central....	111	52	6.7	41.5	4.7	9.7	25.8	72.6	61.0	133.7	3.4	6.9	67.9
Ohio.....	25	10	0.7	4.4	0.6	1.2	3.0	6.8	7.0	13.9	0.3	0.8	5.9
Indiana.....	12	4	0.5	2.8	0.4	0.9	2.1	5.5	4.0	9.2	0.1	0.6	5.7
Illinois.....	26	13	0.9	5.6	0.8	1.5	3.7	8.9	8.1	17.1	0.4	1.0	9.6
Michigan.....	30	15	3.4	23.1	2.1	4.4	13.1	41.7	30.2	72.4	2.1	3.1	32.4
Wisconsin.....	18	10	1.0	5.5	0.8	1.7	3.9	9.6	11.8	21.2	0.5	1.5	14.3
West North Central....	35	14	1.0	5.7	0.7	1.5	3.7	11.0	8.4	19.2	0.9	0.6	5.8
Minnesota.....	10	4	0.4	2.2	0.3	0.6	1.3	5.3	3.6	8.7	0.3	0.2	2.1
Kansas.....	8	5	0.3	1.7	0.2	0.5	1.1	2.6	2.1	4.7	0.5	0.1	0.9
South Atlantic.....	44	22	2.3	10.7	2.0	4.1	7.9	17.2	13.6	30.3	0.5	2.3	13.0
Virginia.....	7	4	0.2	1.1	0.2	0.4	0.8	1.5	1.2	2.8	(Z)	0.5	2.0
North Carolina.....	16	10	1.5	7.0	1.3	2.7	5.2	11.5	9.4	20.3	(D)	1.4	8.6
Florida.....	9	4	0.3	1.3	0.2	0.4	0.9	2.0	1.3	3.3	0.1	(D)	(D)
East South Central....	32	14	0.9	3.9	0.8	1.6	2.9	8.2	8.6	16.2	0.3	0.7	4.2
Tennessee.....	15	E	0.5	2.0	0.4	0.7	1.4	4.3	4.9	8.7	0.2	0.4	2.3
West South Central....	51	32	3.7	16.8	3.0	6.0	10.9	33.7	31.7	64.2	1.8	2.5	15.5
Mountain.....	9	3	0.2	1.4	0.2	0.3	1.0	2.1	2.2	4.3	(Z)	(D)	(D)
Pacific.....	70	19	4.2	31.6	3.3	7.0	22.1	50.3	37.4	83.9	1.1	(D)	(D)
California.....	58	14	3.8	28.9	2.9	6.4	20.2	44.3	33.6	74.1	(D)	1.2	13.5

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2531- --	PUBLIC BUILDING FURNITURE, TOTAL.....		(X)	386.5	(X)	263.3
25311 --	School furniture, except stone and concrete.....		(X)	158.4	(X)	118.0
	Single pupil units:					
25311 12	Desk seat combination with book box (swivel or fixed seat)....	1,000 units...	<sup>e</sup> 506.2	9.4	231.8	5.3
25311 15	Desk seat combination without book box (including study top)...	do.....	<sup>e</sup> 338.6	5.3	291.5	4.2
25311 22	Chair desk.....	do.....	627.1	7.8	929.2	9.1
25311 24	Tablet arm chair.....	do.....	671.9	8.8	344.4	3.5
25311 29	Other single pupil units (including single pupil table desks)...	do.....	<sup>e</sup> 810.7	10.7	962.9	9.7
25311 33	Two or more pupil desks and tables.....	do.....	<sup>e</sup> 143.1	4.7	210.1	4.9
25311 36	Chairs, all purpose (nonfolding).....	do.....	<sup>e</sup> 3,207.6	28.3	2,696.2	19.5
25311 38	Combination folding tables and benches.....	do.....	<sup>e</sup> 44.7	4.3	(S)	6.7
25311 37	Storage cabinets.....	do.....	<sup>e</sup> 233.6	20.8	175.6	17.1
25311 39	Other school furniture, designed specifically for use in schools (including tables, teachers' desks, chalk boards, study carrels, etc.).....		(X)	51.9	(X)	33.8
25311 00	School furniture, n.s.k.....		(X)	6.4	(X)	4.4
25312 --	Public building and related furniture, except school furniture....		(X)	206.8	(X)	134.2
25312 11	Seats for public conveyances, automobiles, trucks, aircraft and buses.....	1,000 units...	1,201.5	61.4	758.6	33.0
25312 31	Church pews.....	1,000 lin. ft.	<sup>e</sup> 2,715.4	24.8	2,315.3	21.4
25312 39	Other church furniture (pulpits, altars, lecterns, etc.).....		(X)	6.8	(X)	7.3
25312 41	Folding tables, including folding banquet tables.....	1,000 tables..	602.0	15.7	(NA)	(NA)
	Chairs and seats:					
	Theatre and auditorium:					
25312 51	Fixed.....	1,000 chairs..	828.4	19.4	737.9	13.1
25312 55	Portable folding chairs, single or ganged.....	do.....	3,987.8	16.7	3,688.7	13.4
25312 61	Stadium and bleacher seats, including grandstands.....		(X)	14.3	(X)	13.4
25312 71	Library furniture, all types (including chairs, charging desks, study carrels, reading tables, etc.).....		(X)	22.3	(X)	10.5
25312 98	Other public building furniture.....		(X)	22.6	(X)	14.7
25312 00	Public building furniture, except school, n.s.k.....		(X)	2.8	(X)	7.3
25310 00	Public building furniture, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	14.6	}	11.1
25310 02	Public building furniture, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	6.7		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2531.--PUBLIC BUILDING FURNITURE					
	Materials, parts, containers, and supplies, total.....		(X)	172.0	(X)	119.0
229508	Coated or laminated fabric (for upholstery).....	Mil. lin. yds....	<sup>e</sup> 1.7	4.3	1.7	3.3
242101	Hardwood lumber, rough and dressed.....	Mil. bd. ft.....	<sup>e</sup> 48.6	11.6	52.6	10.4
242103	Softwood lumber, rough and dressed.....	...do.....	<sup>e</sup> 18.9	2.7	18.9	2.8
243250	Hardwood veneer.....	Mil. sq. ft. (sur. meas.)....	<sup>e</sup> 82.2	4.6	78.1	3.5
243210	Hardwood plywood.....	...do.....	18.6	5.1	13.7	4.3
243203	Softwood plywood.....	Mil. sq. ft. (3/8" basis)....	<sup>e</sup> 16.8	2.4	15.8	1.7
249930	Particleboard.....	Mil. sq. ft. (3/4" basis)....	<sup>e</sup> 24.1	3.4	14.8	2.1
249960	Hard pressed wood fiberboard.....	Mil. sq. ft. (1/8" basis)....	<sup>e</sup> 28.9	2.4	13.0	0.9
265011	Paperboard boxes and containers (including folding, corrugated, and set-up).....		(X)	4.4	(X)	3.2
285101	Paints, varnishes, lacquers, japans, and enamels.....	Mil. gals.....	<sup>e</sup> 1.5	3.5	1.1	3.0
307931	Plastic laminated sheets.....		(X)	7.6	(X)	3.8
	Mill shapes and forms (except castings):					
	Carbon steel (including wrought iron):					
331012	Sheet and strip.....	1,000 s. tons....	89.1	14.4	70.1	12.3
331019	All other carbon steel mill shapes and forms (including tubing).....	...do.....	<sup>e</sup> 18.4	4.4	24.2	4.6
331020	Alloy steel mill shapes and forms (except stainless).....	...do.....	<sup>e</sup> 3.7	1.3	1.2	0.6
331031	Stainless steel mill shapes and forms.....	...do.....	<sup>e</sup> 0.3	0.4	(NA)	0.3
335208	Aluminum and aluminum-base alloy mill shapes and forms.....	Million lbs.....	<sup>e</sup> 8.3	5.5	4.8	2.6
342901	Furniture and builder's hardware, including cabinet hardware, casters, gliders.....		(X)	10.9	(X)	5.9
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	69.3	(X)	36.7
976000	Materials, components, parts, containers, and supplies, n.s.k....		(X)	13.3	(X)	17.0

<sup>e</sup>From 10 to 30 percent of this figure was estimated.

(NA) Not available.

n.s.k. Not specified by kind.

(X) Not applicable.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2531, these small establishments accounted for approximately 1.4 percent of payrolls and 1.5 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

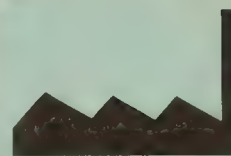
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Wood partitions and fixtures SIC Code 2541

### preliminary report

The Wood Partitions, Shelving, Lockers, and Office and Store Fixtures Industry includes establishments primarily engaged in manufacturing wood shelving, lockers, office and store fixtures, prefabricated partitions, and related fabricated products. Establishments primarily engaged in manufacturing refrigerated cabinets, show cases, and display cases are classified in industry 3585, and safes and vaults in industry 3492.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Wood Partitions and Fixtures Industry

amounted to \$515.8 million, an increase of 32.4 percent compared with 1963. Value added by manufacture at \$293.9 million in 1967 was 34.1 percent more than value added in 1963. Average employment in the industry showed an increase of 6.6 percent from 1963 to a total of 25.9 thousand employees in 1967.

Of the \$515.8 million total value of shipments and other receipts of establishments classified in the Wood Partitions and Fixtures, \$37.2 million were products primary to other industries; and \$37.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expend- itures, new (million dollars)	End-of-year inventories (million dollars)	Special- ization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employ- ees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2541.--WOOD PARTITIONS AND FIXTURES													
1967 Census....	1,472	340	25.9	176.1	21.1	42.0	127.6	293.9	222.7	515.8	8.7	59.9	92	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	25.0	161.9	20.4	40.3	119.1	260.8	208.4	462.0	6.9	55.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	25.1	153.8	20.3	40.2	114.2	234.7	196.3	426.6	8.8	49.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	23.2	139.0	18.6	38.2	101.9	211.4	172.7	389.6	4.6	46.0	(NA)	(NA)
1963 Census....	1,594	347	24.3	142.5	19.4	40.0	106.3	219.2	172.5	389.6	6.8	46.5	94	89
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

The total value of wood partitions and fixtures shipped by all producers in 1967 was \$482.5 million of which \$441.2 million, or 91 percent, were shipped by plants classified in industry 2541, Wood Partitions and Fixtures, while the remainder was shipped by plants classified in other indus-

tries. This percent, called the coverage ratio, was 89 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2541.--WOOD PARTITIONS AND FIXTURES													
United States, total.....	1,472	340	25.9	176.1	21.1	42.0	127.6	293.9	222.7	515.8	8.7	24.3	219.2
New England.....	89	22	1.5	10.5	1.2	2.5	7.9	17.7	10.4	27.1	0.2	2.2	16.8
Massachusetts.....	51	11	0.8	5.5	0.7	1.3	4.2	8.8	5.4	14.2	0.1	0.8	5.8
Rhode Island.....	14	5	0.4	2.6	0.3	0.6	2.0	5.2	2.5	6.8	(Z)	0.4	3.0
Middle Atlantic.....	346	84	6.4	46.2	5.4	10.9	34.1	73.9	54.8	129.1	1.5	5.8	54.6
New York.....	212	51	3.8	28.9	3.2	6.4	22.0	49.5	33.8	83.0	1.0	3.6	34.5
New Jersey.....	59	9	0.6	4.3	0.5	1.0	3.0	6.4	4.9	11.2	0.2	0.7	6.1
Pennsylvania.....	75	24	2.1	13.0	1.7	3.5	9.1	18.0	16.1	34.8	0.4	1.5	14.0
East North Central....	294	76	6.6	43.8	5.3	10.4	30.9	75.7	65.0	140.0	4.0	4.9	46.4
Ohio.....	68	19	1.3	10.0	1.0	2.0	6.7	15.7	12.9	28.6	0.6	1.1	10.0
Indiana.....	37	7	0.7	3.7	0.6	1.1	2.8	5.9	5.2	11.1	(D)	0.3	2.7
Illinois.....	85	30	2.3	16.6	1.8	3.8	11.8	28.2	25.1	52.7	1.8	1.9	19.0
Michigan.....	65	15	1.7	10.6	1.4	2.6	7.3	19.9	16.1	35.8	0.7	1.1	11.5
Wisconsin.....	39	5	0.5	2.9	0.5	0.9	2.2	5.9	5.7	11.8	(D)	0.5	3.3
West North Central....	80	19	1.7	12.7	1.4	3.0	9.0	22.1	15.4	37.7	0.7	2.1	16.3
Missouri.....	29	11	0.6	4.5	0.5	0.9	3.3	6.5	6.5	13.4	(D)	1.0	8.0
South Atlantic.....	155	43	2.9	16.6	2.4	4.8	11.8	27.1	21.9	48.6	(D)	2.2	16.4
Georgia.....	27	7	0.5	2.5	0.4	0.7	1.9	4.5	3.1	7.4	0.1	0.3	2.2
Florida.....	51	15	1.0	5.5	0.8	1.5	4.0	9.7	7.2	16.7	0.2	0.7	5.8
East South Central....	48	14	0.9	4.8	0.7	1.5	3.5	8.6	9.4	17.8	0.2	0.7	5.3
Kentucky.....	8	1	0.1	0.6	0.1	0.2	0.3	0.9	0.6	1.5	(Z)	(D)	(D)
Alabama.....	14	4	0.1	0.8	0.1	0.2	0.6	1.5	1.0	2.5	(Z)	(D)	(D)
West South Central....	110	22	1.9	10.5	1.4	2.9	7.3	17.5	12.9	30.7	(D)	1.3	11.8
Texas.....	75	18	1.4	8.2	1.0	2.1	5.4	12.6	8.6	21.4	(D)	1.0	5.7
West.....	350	60	4.0	31.0	3.3	6.1	23.1	51.2	32.9	84.9	1.0	5.1	51.6
California.....	261	44	3.1	24.7	2.5	4.7	18.2	41.1	26.2	67.9	(D)	4.0	42.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value (million dollars)	
		1967	1963
2541- --	WOOD PARTITIONS AND FIXTURES, TOTAL.....	482.5	384.5
25410 11	Partitions (prefabricated-assembled or knocked down).....	43.7	19.7
25410 15	Shelving and lockers.....	13.1	6.3
	Store fixtures--retail (except food stores):		
	Custom:		
25410 32	Walls and wall fixtures.....	71.9	27.1
25410 33	Center floor tables and gondolas.....	32.6	27.0
25410 34	Other fixtures and displays.....	23.7	24.5
	Manufacturers standard:		
25410 35	Walls and wall fixtures.....	14.9	10.5
25410 36	Center floor tables and gondolas.....	8.6	11.7
25410 37	Other fixtures and displays.....	9.7	11.1
25410 38	Store fixtures for retail food stores.....	20.8	17.6
25410 39	Other show and display cases (including wall types) and tables, wood.....	14.7	20.9
25410 41	Cabinets (floor or wall types), wood.....	18.5	18.8
25410 61	Counters, except bank counters, wood.....	5.6	5.3
25410 71	Plastic laminated fixture tops (including drain boards, sink, cabinet, table, counter and fixture tops).....	71.4	65.8
25410 81	Bank fixtures, wood, including bank counters.....	16.2	34.2
25410 98	Window backs, telephone booths, miscellaneous display fixtures, cashier stands, clothing racks, etc.....	12.9	
25410 00	Wood partitions and fixtures, n.s.k. (For companies with 10 or more employees. See Note.).....	72.1	
25410 02	Wood partitions and fixtures, n.s.k. (For companies with less than 10 employees. See Note.)....	32.1	84.1

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2541.--WOOD PARTITIONS AND FIXTURES					
	Materials, parts, containers, and supplies, total.....		(X)	193.2	(X)	154.5
229508	Coated or laminated fabric (for upholstery).....	Mil. lin. yds....	(NA)	0.5	(S)	0.3
242101	Hardwood lumber, rough and dressed.....	Mil. bd. ft.....	(NA)	10.7	30.1	8.6
242103	Softwood lumber, rough and dressed.....	...do.....	28.3	6.5	27.6	4.4
243250	Hardwood veneer.....	Mil. sq. ft. (surf. meas)....	(NA)	4.2	(S)	2.1
243210	Hardwood plywood.....	...do.....	<sup>e</sup> 35.8	11.7	45.6	13.4
243203	Softwood plywood.....	Mil. sq. ft. (3/8" basis)....	<sup>e</sup> 66.4	11.3	52.0	8.1
249930	Particleboard.....	Mil. sq. ft. (3/4" basis)....	<sup>e</sup> 76.0	12.9	29.2	5.4
249960	Hard pressed wood fiberboard.....	Mil. sq. ft. (1/8" basis)....	<sup>e</sup> 38.7	4.2	22.2	2.1
265011	Paperboard boxes and containers, including folding, corrugated, and setup boxes.....		(X)	2.2	(X)	1.2
285101	Paints, varnishes, lacquers, japans, and enamels.....	Mil. gals.....	<sup>e</sup> 2.0	5.8	1.5	4.4
307931	Plastic laminated sheets.....		(X)	24.8	(X)	16.7
	Mill shapes and forms (except castings):					
	Carbon steel (including wrought iron):					
331012	Sheet and strip.....	1,000 short tons.	<sup>e</sup> 23.9	3.8	(S)	0.7
331019	All other carbon steel mill shapes and forms, including tubing.....	...do.....	<sup>e</sup> 3.9	1.2	3.5	0.8
331020	Alloy steel mill shapes and forms, except stainless.....	1,000 short tons.	(NA)	0.6	2.2	0.6
331031	Stainless steel mill shapes and forms.....	...do.....	(NA)	0.7	(S)	1.0
335208	Aluminum and aluminum-base alloy mill shapes and forms.....	Million lbs.....	<sup>e</sup> 3.7	1.9	2.5	1.3
342901	Furniture and builders' hardware, including cabinet hardware, gliders, handles, hinges, locks, casters, etc.....		(X)	13.6	(X)	8.2
970099	All other materials, components, parts, containers, and supplies consumed, n.e.c.....		(X)	33.4	(X)	23.4
976000	Materials, components, parts, containers, and supplies, n.s.k....		(X)	43.2	(X)	51.9

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2541, these small establishments accounted for approximately 4.8 percent of payrolls and 6.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

OFFICIAL BUSINESS

POSTAGE AND FEES  
U.S. DEPARTMENT OF COMMERCE



# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Metal partitions and fixtures

SIC Code 2542

**preliminary  
report**

The Metal Partitions, Shelving, Lockers, and Office and Store Fixtures Industry includes establishments primarily engaged in manufacturing metal shelving, lockers, office and store fixtures, prefabricated partitions, and related fabricated products. Establishments primarily engaged in manufacturing refrigerated cabinets, showcases, and display cases are classified in industry 3585, and safes and vaults in industry 3492.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Metal Partitions and Fixtures Industry

amounted to \$499.5 million, an increase of 32.2 percent compared with 1963. Value added by manufacture at \$294.4 million in 1967 was 37.3 percent more than value added in 1963. Average employment in the industry showed an increase of 9.4 percent from 1963 to a total of 22.2 thousand employees in 1967.

Of the \$499.5 million total value of shipments and other receipts of establishments classified as metal partitions and fixtures, \$88.5 million were products primary to other industries; and \$30.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 90 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 83 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2542.--METAL PARTITIONS AND FIXTURES													
1967 Census....	499	187	22.2	148.7	16.6	34.1	93.0	294.4	208.6	499.5	19.3	72.3	90	83
1966 ASM <sup>1</sup> .....	(NA)	(NA)	25.5	160.8	19.4	40.1	110.1	303.5	223.0	520.1	9.1	75.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	21.7	138.2	16.2	34.4	91.7	253.0	174.9	422.5	10.9	62.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	21.6	128.9	15.7	33.6	85.0	236.8	171.8	403.9	*7.1	61.1	(NA)	(NA)
1963 Census....	513	167	20.3	119.3	14.9	31.7	79.2	214.3	165.7	377.8	8.5	56.8	83	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 6 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

The total value of metal partitions and fixtures shipped by all producers in 1967 was \$512.3 million of which \$42.8 million, or 83 percent, were shipped by plants classified in industry 2542, Metal Partitions and Fixtures, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
	INDUSTRY 2542.--METAL PARTITIONS AND FIXTURES												
United States, total.....	499	187	22.2	148.7	16.6	34.1	93.0	294.4	208.6	499.5	19.3	20.3	214.3
New England.....	25	9	0.8	5.4	0.6	1.3	3.3	8.5	5.9	14.4	0.3	0.5	3.8
Massachusetts.....	14	5	0.5	3.2	0.4	0.7	1.9	4.8	3.5	8.3	0.2	0.4	3.5
Middle Atlantic.....	181	59	5.7	38.7	4.7	9.6	26.8	74.7	58.6	132.7	9.3	5.8	58.9
New York.....	126	38	2.6	18.4	2.2	4.5	12.1	32.4	25.3	58.0	0.8	3.2	30.0
New Jersey.....	23	6	0.5	3.5	0.4	1.0	2.6	6.7	6.9	13.4	0.2	0.5	4.9
Pennsylvania.....	32	15	2.5	16.7	2.0	4.1	12.1	35.7	26.4	61.3	8.3	2.2	24.0
East North Central....	114	58	9.3	63.9	6.5	13.0	38.6	134.4	83.6	216.2	5.3	9.2	103.1
Ohio.....	24	11	3.4	24.2	2.3	4.6	14.6	60.5	29.3	89.4	1.8	3.6	43.7
Indiana.....	13	6	0.9	5.8	0.6	1.2	3.8	10.3	7.4	17.3	(D)	1.0	9.7
Illinois.....	45	25	3.6	24.3	2.6	5.2	14.4	48.6	33.4	79.2	2.7	3.4	36.0
Michigan.....	25	14	1.4	9.1	1.0	1.8	5.4	14.0	12.6	28.2	0.5	1.2	12.9
Wisconsin.....	7	2	0.1	0.6	0.1	0.2	0.4	1.1	1.0	2.1	(D)	(D)	(D)
West North Central....	26	10	1.4	9.5	0.9	2.0	4.9	17.5	9.4	26.3	0.6	0.9	9.6
Missouri.....	13	5	0.6	3.7	0.4	0.9	2.2	5.6	3.3	8.8	(D)	0.3	2.5
South Atlantic.....	■	10	1.6	9.3	1.1	2.4	4.4	14.6	10.5	24.8	(D)	1.3	10.4
Georgia.....	■	2	0.1	0.6	0.1	0.2	0.4	1.0	0.9	1.9	0.1	(D)	(D)
Florida.....	13	4	0.2	1.3	0.2	0.4	0.8	2.0	1.5	3.3	0.1	0.1	0.8
East South Central....	19	10	1.1	5.4	0.9	2.0	4.2	14.9	17.1	31.7	1.2	0.7	8.0
Kentucky.....	3	3	0.1	0.8	0.1	0.3	0.6	1.2	1.2	2.4	(D)	(D)	(D)
West South Central....	28	10	0.8	4.7	0.7	1.4	3.3	7.1	6.6	13.8	(D)	0.4	3.3
Texas.....	20	7	0.5	3.2	0.4	0.9	2.2	4.7	4.7	9.5	(D)	0.4	2.8
West.....	68	21	1.6	11.8	1.2	2.4	7.5	22.7	16.9	39.5	0.7	1.5	17.2
California.....	55	19	1.5	10.9	1.1	2.2	6.9	21.4	16.0	37.3	(D)	1.4	15.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value (million dollars)	
		1967	1963
2542- --	METAL PARTITIONS AND FIXTURES, TOTAL.....	512.3	367.6
25420 --	Metal partitions, shelving, lockers, and office and store fixtures: Partitions (prefabricated-assembled or knocked down):		
25420 13	Toilet partitions.....	23.1	15.6
25420 17	Movable (except free standing).....	55.0	45.1
25420 19	Other partitions, including free standing, excluding accordion and folding type doors.....	8.3	8.8
	Shelving:		
25420 33	Commercial shelving (factories, stores etc.).....	101.5	81.9
25420 35	Office shelving for correspondence, computer tapes, microfilm, etc. (including shelf files with or without doors).....	13.5	
25420 37	Bookstacks (library, office, and school).....	15.4	
25420 39	Other shelving.....	30.4	
25420 51	Lockers, metal.....	49.6	32.3
	Store fixtures--retail (except food stores):		
25420 63	Custom.....	27.4	21.4
25420 65	Manufacturers standard.....	24.4	30.8
25420 67	Store fixtures--retail food stores.....	25.0	18.9
25420 69	Show and display cases, including wall types and tables, metal.....	16.1	9.8
25420 71	Cabinets (floor or wall types) metal.....	44.5	35.1
25420 81	Counters, except bank counters, metal.....	5.4	4.5
25420 83	Bank fixtures, metal, including counters.....	1.9	36.7
25420 98	Window backs, telephone booths, miscellaneous display fixtures, cashier stands, clothing racks, metal bank counters, except ornamental metal work, etc.....	28.0	
25420 00	Metal partitions and fixtures, n.s.k. (For companies with 10 or more employees. See Note.).....	33.4	26.6
25420 02	Metal partitions and fixtures, n.s.k. (For companies with less than 10 employees. See Note.).....	9.4	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
INDUSTRY 2542.--METAL PARTITIONS AND FIXTURES						
	Materials, parts, containers, and supplies, total.....		(X)	188.2	(X)	152.1
229508	Coated or laminated fabric (for upholstery).....	Million lin. yds..	(NA)	0.1	(S)	0.2
242101	Hardwood lumber, rough and dressed.....	Million bd. ft....	6.2	1.2	5.9	0.7
242103	Softwood lumber, rough and dressed.....	...do.....	7.3	1.2	7.9	1.3
243250	Hardwood veneer.....	Million sq. ft. (surface measure)	(NA)	0.2	(S)	0.1
243210	Hardwood plywood.....	...do.....	3.1	0.9	2.3	0.8
243203	Softwood plywood.....	Million sq. ft. (3/8" basis).....	(NA)	0.5	5.6	0.8
249930	Particleboard.....	Million sq. ft. (3/4" basis).....	(NA)	0.3	1.6	0.4
249960	Hard pressed wood fiberboard.....	Million sq. ft. (1/8" basis).....	(NA)	1.2	18.5	1.5
265011	Paperboard boxes and containers, including folding, corrugated, and setup boxes.....		(X)	6.9	(X)	5.8
285101	Paints, varnishes, lacquers, japans, and enamels.....	Million gals.....	2.6	8.8	2.2	0.6
307931	Plastic laminated sheets.....		(NA)	1.5	(X)	0.4
	Mill shapes and forms (except castings):					
	Carbon steel (including wrought iron):					
331012	Sheet and strip.....	1,000 short tons..	e 486.4	81.1	392.9	60.3
331019	All other carbon steel mill shapes and forms, including tubing.....	...do.....	(NA)	8.4	27.4	5.7
331020	Alloy steel mill shapes and forms, except stainless.....	1,000 short tons..	(NA)	1.6	7.3	1.1
331031	Stainless steel mill shapes and forms.....	1,000 short tons..	e 1.8	1.8	2.1	2.2
335208	Aluminum and aluminum-base alloy mill shapes and forms.....	Million lbs.....	(NA)	2.4	5.1	2.5
342901	Furniture and builders' hardware, including cabinet hardware, gliders, handles, hinges, locks, casters, etc.....		(X)	11.2	(X)	8.5
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	37.0	(X)	32.5
976000	Materials, components, parts, containers, and supplies, n.s.k....		(X)	21.9	(X)	20.5

<sup>e</sup> From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2542, these small establishments accounted for approximately 1.7 percent of payrolls and 1.7 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

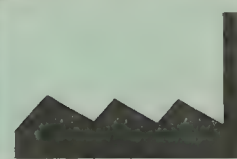
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Venetian blinds and shades

SIC Code 2591

**preliminary  
report**

The Venetian Blinds and Shades Industry includes establishments primarily engaged in manufacturing venetian blinds, regardless of the materials used, and shades except canvas shades and awnings (industry 2394).

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Venetian Blinds and Shades Industry amounted to \$246.9 million, an increase of 23.7 percent compared with 1963. Value added by manufacture at \$122.3 million in 1967 was 29.7 percent more than value added in 1963. Average

employment in the industry showed an increase of 8.4 percent from 1963 to a total of 11.6 thousand employees in 1967.

Of the \$246.9 million total value of shipments and other receipts of establishments classified as venetian blinds and shades, \$22.2 million were products primary to other industries; and \$28.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 90 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

The total value of venetian blinds and shades shipped by all producers in 1967 was \$207.0 million of which \$196.2 million, or 95 percent

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2591.--VENETIAN BLINDS AND SHADES														
1967 Census....	606	61	11.6	62.1	8.5	15.9	37.6	122.3	125.6	246.9	6.5	50.0	90	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.7	58.1	8.6	17.0	37.0	113.5	118.9	229.0	4.0	48.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	11.7	56.3	8.3	17.4	36.1	111.4	121.0	226.8	3.0	44.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	10.9	52.6	8.2	16.1	35.8	102.1	114.1	215.6	3.1	34.4	(NA)	(NA)
1963 Census....	718	60	10.7	49.6	8.0	15.8	32.5	94.3	105.1	199.6	4.3	34.7	89	90
1962 ASM <sup>1</sup> .....	(NA)	(NA)	11.3	49.2	8.1	16.7	31.8	98.1	111.5	211.2	3.6	29.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	11.2	48.0	8.3	16.6	30.0	93.1	109.9	201.7	3.1	32.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	12.3	51.3	9.0	17.3	32.0	96.4	113.2	209.2	2.3	35.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	11.9	48.2	8.9	17.0	31.3	95.7	118.0	212.5	1.9	34.0	(NA)	(NA)
1958 Census <sup>2</sup> ....	850	85	11.3	44.0	8.3	15.5	28.7	84.9	104.4	189.6	3.3	32.2	93	94

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 7 and 7, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

were shipped by plants classified in industry 2591, Venetian Blinds and Shades, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 90 percent in 1963.

2, and 4 may be compared with the product statistics in table 3.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2591.--VENETIAN BLINDS AND SHADES												
United States, total.....	606	61	11.6	62.1	8.5	15.9	37.6	122.3	125.6	246.9	6.5	10.7	94.3
New England.....	33	5	1.2	6.3	0.9	1.8	4.0	11.6	9.7	20.9	0.4	1.1	9.6
Massachusetts.....	16	2	0.1	0.5	0.1	0.2	0.3	0.9	1.1	2.0	(Z)	0.1	1.1
Middle Atlantic.....	189	16	2.3	11.7	1.9	3.5	7.8	21.9	26.4	48.3	0.6	2.7	21.9
New York.....	126	8	1.1	5.5	0.9	1.7	3.8	8.6	10.4	19.5	(D)	1.6	14.1
New Jersey.....	36	4	0.5	2.8	0.4	0.7	1.5	7.6	8.4	15.5	(D)	0.3	3.7
Pennsylvania.....	27	4	0.8	3.3	0.6	1.2	2.5	5.7	7.6	13.4	(Z)	0.7	4.1
East North Central.....	90	22	3.9	24.7	2.8	5.5	14.0	58.2	49.7	104.9	4.1	3.0	36.4
Indiana.....	6	2	0.1	0.5	0.1	0.2	0.4	1.2	1.3	2.5	(D)	(D)	(D)
West North Central.....	36	1	0.2	0.9	0.2	0.3	0.6	1.9	2.2	4.2	(Z)	0.4	2.3
Missouri.....	12	-	0.1	0.4	0.1	0.1	0.2	0.7	0.9	1.6	(D)	0.2	1.3
South.....	161	8	3.0	14.1	2.1	3.6	8.5	20.4	28.4	51.0	(D)	2.8	16.8
South Atlantic.....	79	6	2.5	12.2	1.7	2.9	7.1	16.3	22.4	41.1	(D)	2.1	12.5
Florida.....	26	-	0.1	0.5	0.1	0.2	0.4	0.8	1.2	2.0	(Z)	0.2	1.0
Texas.....	46	-	0.2	0.7	0.1	0.2	0.4	1.6	1.6	3.1	(D)	(D)	(D)
West.....	97	8	0.9	4.4	0.6	1.2	2.7	8.3	9.3	17.6	(D)	0.8	7.3
California.....	62	8	0.7	3.6	0.5	1.0	2.2	6.8	7.0	13.8	0.1	0.6	6.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

- Represents zero. (D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals. (Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2591- --	VENETIAN BLINDS AND SHADES, TOTAL.....	.....	(X)	207.0	(X)	170.8
25911 --	Window shades and accessories.....	.....	(X)	141.9	(X)	108.9
25911 12	Window shades, cloth, plastic, paper, etc.....	Million units..	<sup>e</sup> 29.4	39.7	33.7	31.6
25911 15	Window shade accessories.....	...do.....	(X)	8.3	(X)	8.1
25911 17	Curtain and drapery rods, poles and fixtures fabricated in this plant.....	...do.....	(X)	92.8	(X)	63.7
25911 00	Window shades and accessories, n.s.k.....	...do.....	(X)	1.1	(X)	5.6
25912 --	Venetian blinds.....	.....	(X)	34.9	(X)	50.4
	Complete venetian blinds, vertical and horizontal:					
25912 12	Steel-slat blinds.....	...do.....	(NA)	8.6	(S)	13.9
25912 52	Aluminum-slat blinds.....	...do.....	(NA)	9.5	(S)	9.9
25912 59	All other venetian blinds, including wood, plastic, etc.....	...do.....	(NA)	0.7	(S)	1.9
25912 71	Unassembled venetian blinds, parts and components fabricated in this plant.....	...do.....	(X)	9.1	(X)	11.2
25912 98	Other shades and blinds, except canvas, including wood, metal, plastic, chip, bamboo, rattan, reed etc.....	...do.....	(NA)	6.3	(S)	1.7
25912 00	Venetian blinds, n.s.k.....	...do.....	(X)	0.7	(X)	11.8
25910 00	Venetian blinds and shades, n.s.k. (For companies with 10 or more employees. See Note.).....	...do.....	(X)	8.8	}	11.5
25910 02	Venetian blinds and shades, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	21.4		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2591.--VENETIAN BLINDS AND SHADES					
	Materials, parts, containers, and supplies, total.....		(X)	108.9	(X)	82.9
	Mill shapes and forms:					
	Carbon steel (including wrought iron):					
331012	Sheet and strip.....	1,000 short tons.	86.6	16.8	45.6	8.8
331019	All other carbon steel, including tubing:.....	...do.....	(NA)	1.0	35.7	6.3
331025	Alloy steel, including stainless.....	...do.....	(NA)	2.1	(S)	0.6
	Aluminum and aluminum-base alloy					
335202	Sheet, plate, and foil.....	Million lbs.....	<sup>e</sup> 10.3	3.9	5.6	2.6
335205	Extruded shapes, including extruded rod, bar, pipe, tube, etc.....	...do.....	(NA)	7.4	2.0	1.5
335209	Wire, rolled rod, and bar, powder, welded tubing, extruded shapes, etc.).....	...do.....	(NA)	0.5	(S)	1.0
229506	Plastic-coated fabric and shade cloth.....	million lin. yds.	(NA)	9.3	11.9	6.5
970099	All other materials, components, parts, containers, and supplies consumed, n.e.c.....		(X)	50.0	(X)	36.3
976000	Materials, components, parts, containers, and supplies, n.s.k....		(X)	17.9	(X)	18.9

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2591, these small establishments accounted for approximately 6.9 percent of payrolls and 8.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

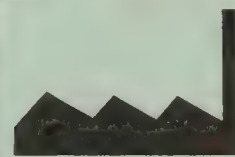
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-25B-7

## INDUSTRY SERIES

### Furniture and fixtures, n.e.c.

SIC CODE 2599

preliminary  
report

The Furniture and Fixtures, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing furniture and fixtures, not elsewhere classified, including furniture especially designed for use in restaurants.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Furniture and Fixtures, N.E.C., Industry amounted to \$171.5 million, an increase of 41.0 percent compared with 1963. Value added

by manufacture at \$96.1 million in 1967 was 45.8 percent more than value added in 1963. Average employment in the industry showed an increase of 30.7 percent from 1963 to a total of 9.8 thousand employees in 1967.

Of the \$171.5 million total value of shipments and other receipts of establishments classified as furniture and fixtures, n.e.c., \$21.4 million were products primary to other industries; and \$9.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2599.--FURNITURE AND FIXTURES, N.E.C.													
1967 Census....	324	118	9.8	57.7	8.2	16.6	43.2	96.1	76.7	171.5	3.4	21.1	87	73
1966 ASM <sup>1</sup> .....	(NA)	(NA)	7.9	45.7	6.7	14.0	33.2	81.8	69.3	152.5	2.5	15.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	7.5	40.7	6.4	12.7	29.3	75.3	69.1	143.4	*1.9	14.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	7.6	39.9	6.2	12.6	28.7	66.0	58.4	125.7	*0.8	13.6	(NA)	(NA)
1963 Census....	356	91	7.5	39.6	6.2	12.4	28.8	65.9	55.3	121.6	1.7	14.3	86	70
1962 ASM <sup>1</sup> .....	(NA)	(NA)	7.1	37.1	5.9	12.8	27.1	63.2	50.5	113.1	*1.1	11.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	6.5	31.6	5.3	10.8	23.0	53.8	45.3	98.5	0.9	10.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	35.4	5.6	11.6	25.7	58.7	46.0	107.1	*1.2	11.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	7.7	37.5	6.2	12.7	27.7	61.3	53.8	115.8	1.7	14.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	259	77	8.0	37.4	6.5	12.7	27.7	60.2	50.6	110.4	2.7	16.7	71	74

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. n.e.c. Not elsewhere classified.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 8 and 5, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS George Hay Brown, Director

The total value of furniture and fixtures, n.e.c. shipped by all producers in 1967 was \$193.7 million of which \$140.6 million, or 73 percent, were shipped by plants classified in industry 2599, Furniture and Fixtures, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 70 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2599.--FURNITURE AND FIXTURES, N.E.C.												
United States, total.....	324	118	9.8	57.7	8.2	16.6	43.2	96.1	76.7	171.5	3.4	7.5	65.9
New England.....	12	8	0.6	3.9	0.5	1.2	3.1	6.1	3.6	9.7	(D)	0.5	4.8
Middle Atlantic.....	79	30	2.1	11.8	1.8	3.7	8.9	22.3	21.7	43.3	0.6	1.9	17.4
New York.....	48	18	1.4	7.7	1.2	2.5	5.9	15.1	13.6	28.2	0.5	1.1	10.0
New Jersey.....	12	3	0.3	1.5	0.2	0.4	1.0	2.6	2.5	5.0	0.1	0.4	3.2
Pennsylvania.....	19	9	0.5	2.6	0.4	0.8	2.0	4.7	5.5	10.0	0.1	0.5	4.3
East North Central...	64	28	2.9	18.0	2.3	4.8	12.9	27.6	20.1	47.5	0.7	(D)	(D)
Indiana.....	8	3	0.1	0.7	0.1	0.3	0.6	1.1	1.5	2.7	(D)	(D)	(D)
Illinois.....	28	14	1.7	11.3	1.4	3.0	7.9	16.9	12.3	28.9	0.5	1.3	9.8
Michigan.....	18	8	0.5	3.2	0.4	0.8	2.3	5.1	3.9	9.0	0.1	(D)	(D)
West North Central...	26	12	1.0	5.4	0.8	1.6	4.0	9.0	7.9	16.9	0.1	(D)	(D)
Missouri.....	14	9	0.8	4.2	0.7	1.3	3.2	7.2	6.3	13.5	(D)	0.6	4.6
South.....	62	20	2.1	10.8	1.8	3.6	8.5	19.3	13.8	32.5	(D)	1.4	10.0
South Atlantic.....	32	13	1.5	8.1	1.3	2.5	6.4	13.3	10.0	23.1	(D)	0.9	6.0
Florida.....	11	3	0.3	1.9	0.3	0.5	1.5	3.1	1.6	4.5	0.3	0.1	0.9
West.....	81	20	1.1	7.7	0.9	1.8	5.9	11.7	9.7	21.6	0.3	1.0	10.7
Pacific.....	74	20	1.1	7.4	0.9	1.8	5.6	11.1	9.1	20.3	(D)	0.9	10.0
Oregon.....	9	1	0.1	0.4	0.1	0.1	0.4	0.7	0.6	1.3	(D)	(D)	(D)
California.....	59	17	0.9	6.4	0.8	1.5	4.8	9.5	8.1	17.8	0.3	0.9	9.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2599- --	FURNITURE AND FIXTURES, N.E.C., TOTAL.....		(X)	193.7	(X)	138.0
25990 21	Hospital beds.....	1,000 units....	<sup>e</sup> 176.2	25.9	143.1	18.9
	Restaurant furniture:					
25990 41	Wood chairs and stools.....	1,000 units....	<sup>e</sup> 1,244.6	19.6	601.8	10.5
25990 45	Metal chairs and stools.....	...do.....	<sup>e</sup> 1,107.6	12.3	480.5	6.5
25990 49	Other (tables, booths, tray stands, serving tables, etc.).....		(X)	45.7	(X)	41.3
25990 98	Other furniture and fixtures, n.e.c.....		(X)	73.5	(X)	44.4
25990 00	Furniture and fixtures, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	11.5	}	16.4
25990 02	Furniture and fixtures, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	5.2		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2599.--FURNITURE AND FIXTURES, N.E.C.					
	Materials, parts, containers, and supplies, total.....		(X)	68.1	(X)	48.6
229508	Coated or laminated fabric (for upholstery).....	Million lin. yds.	<sup>e</sup> 1.3	2.7	0.9	1.5
242101	Hardwood lumber, rough and dressed.....	Million bd. ft...	(NA)	4.5	7.7	2.4
242103	Softwood lumber, rough and dressed.....	...do.....	<sup>e</sup> 12.8	2.3	3.1	0.4
243250	Hardwood veneer.....	Million sq. ft. (surface measure)	<sup>e</sup> 1.2	0.8	5.0	1.9
243210	Hardwood plywood.....	...do.....	<sup>e</sup> 12.4	2.7		
243203	Softwood plywood.....	Million sq. ft. (3/8" basis)....	(NA)	2.2	9.0	1.5
249930	Particleboard.....	Million sq. ft. (3/4" basis)....	<sup>e</sup> 10.9	1.6	3.5	0.5
249960	Hard pressed wood fiberboard.....	Million sq. ft. (1/8" basis)....	(NA)	0.4	3.7	0.2
265011	Paperboard boxes and containers, including folding, corrugated, and setup boxes.....	.....	(X)	1.1	(X)	0.5
285101	Paints, varnishes, lacquers, japans, and enamels.....	Million gals.....	(NA)	1.6	0.2	0.6
307931	Plastic laminated sheets.....	.....	(X)	3.8	(X)	2.8
	Mill shapes and forms (except castings):					
	Carbon steel (including wrought iron):					
331012	Sheet and strip.....	1,000 short tons.	<sup>e</sup> 30.5	4.9	13.6	2.3
331019	All other carbon steel mill shapes and forms, including tubing.....	...do.....	<sup>e</sup> 7.7	1.6	10.4	1.8
331020	Alloy steel mill shapes and forms, except stainless.....	...do.....	(NA)	0.3	(S)	0.1
331031	Stainless steel mill shapes and forms.....	...do.....	(NA)	4.4	1.8	2.0
335208	Aluminum and aluminum-base alloy mill shapes and forms.....	Million lbs.....	<sup>e</sup> 3.3	2.0	(S)	1.0
342901	Furniture and builder's hardware, including cabinet hardware, gliders, handles, hinges, locks, casters, etc.....	.....	(X)	3.4		
970099	All other materials, components, parts, containers, and supplies consumed.....	.....	(X)	14.6	(X)	14.5
976000	Materials, components, parts, containers, and supplies, n.s.k....	.....	(X)	13.2	(X)	14.6

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.  
(S) Suppressed. (X) Not applicable.



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This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2599, these small establishments accounted for approximately 2.1 percent of payrolls and 3.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





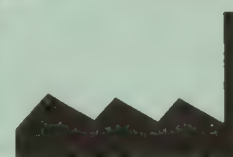






# 1967 CENSUS OF MANUFACTURES

MC67(P)-26A-1



## INDUSTRY SERIES

**preliminary  
report**

### Pulpmills

SIC Code 2611

Pulpmills includes establishments primarily engaged in manufacturing pulp from wood or from other materials such as rags, linters, waste paper, and straw. Logging camps operated by pulpmills, and not separately reported, are also included in this industry. Establishments primarily engaged in cutting pulpwood are classified in industry 2411; and pulpmills combined with papermills or paperboard mills, and not separately reported, are classified with the latter in industries 2621 and 2631, respectively.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Pulpmills amounted to \$735.2 million, an increase of 21 percent compared with 1963. Value added by manufacture at \$333.0 million in 1967 was 13 percent more than value added in 1963. Average employment in the industry showed an increase of approximately 1 percent from 1963 to a total of 15.2 thousand employees in 1967.

Of the \$735.2 million total value of shipments and other receipts of establishments classified as pulpmills, \$99.0 million were products primary to other industries; and \$1.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments,

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2611. --PULPMILLS													
1967 Census....	63	44	15.2	126.5	12.3	25.9	96.6	333.0	408.7	735.2	122.3	99.1	87	72
1966 ASM <sup>1</sup> .....	(NA)	(NA)	15.9	123.5	12.7	26.1	92.5	364.5	365.1	725.5	113.3	93.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	14.8	112.3	12.0	24.8	84.5	346.1	320.1	658.5	112.2	76.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	15.3	113.6	12.4	25.7	85.0	331.6	328.6	662.8	66.6	62.2	(NA)	(NA)
1963 Census....	45	40	15.1	107.4	12.2	25.2	81.0	295.8	312.6	609.0	38.9	65.4	88	71
1962 ASM <sup>1</sup> .....	(NA)	(NA)	13.9	93.4	11.1	23.0	69.3	195.4	286.6	453.6	33.8	63.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	13.6	87.9	10.8	22.5	64.5	196.2	270.7	437.6	49.1	58.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	14.5	89.9	11.5	24.2	66.2	201.2	275.2	471.9	35.2	62.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	14.5	87.1	11.7	24.5	64.8	224.9	261.6	481.0	91.9	52.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	59	48	14.2	74.8	11.4	22.6	56.5	196.0	231.0	428.0	43.0	52.2	98	73

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

The total value of pulp shipped by all producers in 1967 was \$886.7 million of which \$634.7 million, or 72 percent, were shipped by plants classified in industry 2611, Pulpmills, while the remainder was shipped by plants classified in other industries.

This percent, called the coverage ratio, was 71 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2611, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M26A, Pulp, Paper, and Board.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2611.--PULPMILLS												
United States, total.....	63	44	15.2	126.5	12.3	25.9	96.6	333.0	408.7	735.2	122.3	15.1	295.8
Northeast.....	15	9	1.6	10.8	1.2	2.6	8.4	23.7	52.8	76.3	36.3	1.4	14.9
North Central.....	11	6	0.5	3.9	0.5	1.0	3.1	7.5	11.9	19.0	25.4	0.5	6.5
South.....	20	13	6.7	55.2	5.4	11.1	40.8	154.4	181.7	332.7	22.2	7.6	153.7
West.....	17	16	6.3	56.6	5.3	11.2	44.3	147.3	162.2	307.3	38.4	5.7	120.7
Washington.....	10	9	3.9	33.3	3.3	7.1	26.5	86.7	100.7	185.6	(D)	3.8	80.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes <sup>1</sup> (1,000 short tons)	Total value of shipments, including interplant transfers <sup>1 2</sup>		Interplant transfers <sup>1 2</sup>		Production for all purposes (1,000 short tons)	Total value of shipments, including interplant transfers <sup>1 2</sup>		Interplant transfers <sup>1 2</sup>	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2611- --	PULP, TOTAL.....	(X)	(X)	886.7	(X)	171.3	(X)	(X)	726.0	1,721	150.8
26111 11	Special alpha and dissolving woodpulp (sulfite and sulfate) <sup>3</sup> .....	1,448	1,435	227.2	(D)	(D)	1,371	1,365	210.0	11	1.4
26112 --	Other pulp, including wood, and pulpmill byproducts, except tall oil. Woodpulp (except special alpha and dissolving).....	(X)	(X)	655.6	(X)	(D)	(X)	(X)	515.8	(X)	149.4
		35,618	5,525	573.6	1,664	160.0	30,971	4,520	444.4	1,553	140.2
	Sulfite:										
26112 16	Bleached.....	2,563	1,040	118.8	398	40.4	2,203	1,006	108.9	437	45.3
26112 26	Unbleached.....	405	180	17.0	(D)	(D)	483	129	10.4	58	5.2
	Sulfate:										
26112 31	Bleached softwood (brightness over 75).....	8,471	1,983	221.3	440	50.4	6,438	2,320	239.1	570	52.8
26112 35	Bleached hardwood (brightness over 75).....		1,249	130.4	380	38.0					
26112 39	Semibleached (brightness 45 to 72).....		1,531	32.4	(D)	(D)		213	21.8	41	3.8
26112 43	Unbleached.....		13,924	291	75	6.8		323	27.7	73	7.6
26112 51	Soda woodpulp.....	222	-	-	-	-	350	126	13.6	89	9.4
26112 65	Groundwood, bleached and unbleached.....	3,879	137	9.1	60	3.9	3,596	187	12.6	103	7.6
26112 72	Semichemical.....	3,163	214	12.2	194	11.1	2,712	138	6.5	138	6.5
26112 75	Defibrated or exploded.....	1,336	-	-	-	-	1,479	11	(Z)	(X)	(X)
26112 79	Screenings, off-quality, damaged, etc.....	124	111	7.4	(D)	(D)	142	67	3.5	44	2.0
	Pulp, other than wood, and miscellaneous pulpmill products, n.e.c.:										
26112 81	Cotton linter pulp.....	121	103	33.0	(D)	(D)	221	163	34.8	10	1.9
26112 85	Other pulp, including pulp made from straw, rag, flax, deinked paper, bagasse, etc.....	350	144	21.3	(D)	(D)	520	133	14.9	29	4.5
26112 87	Turpentine sulfate (quantity in million gallons).....	36	35	8.9	2	.3	46	28	3.2	(Z)	(Z)
26112 89	Other cooking liquor byproducts (skimmings, binders, fuel, etc.)...	(S)	(S)	18.8	(S)	2.9	101	438	18.5	118	2.7
26110 00	Products of pulpmills, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	2.2	(X)	(X)	}	(X)	(Z)	(X)	(X)
26110 02	Products of pulpmills, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	(X)	1.7	(X)	(X)					

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (Z) Less than 0.1 when rounded.

<sup>1</sup>Source of 1967 Woodpulp "Production for all purposes"-1967 Annual Pulp, Paper, and Board Report, Series: M26A(67)-13.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2611.--PULPMILLS					
	Materials and supplies, total.....		(X)	363.9	(X)	278.7
	Pulpwood:					
	Softwood:					
	Bolts and logs:					
241101	Spruce and true fir.....	1,000 cords of 128 cu. ft.....				
			945.6	23.2	492.4	12.3
241102	Hemlock.....	..do.....	1,317.1	27.2	1,649.4	31.6
241103	Jack pine.....	..do.....	(D)	(D)	3.6	(Z)
241104	Southern pine.....	..do.....	2,678.9	62.5	2,323.0	47.6
241105	Other softwoods (include Douglas fir).....	..do.....	(S)	(S)	273.1	4.2
242157	Chips.....	..do.....	2,937.3	48.4	1,403.9	23.2
242015	Slabs, cores, and other mill waste.....	..do.....	(S)	(S)	281.1	3.4
	Hardwood:					
	Bolts and logs:					
241106	Northern mixed hardwoods.....	..do.....	(D)	(D)	170.9	4.2
241107	Poplar (aspen and popple).....	..do.....	(D)	(D)	18.2	(Z)
241108	Southern mixed hardwoods.....	..do.....	1,140.8	22.7	220.4	3.9
241119	Other hardwoods.....	..do.....	(S)	(S)	236.3	3.5
242013	Slabs, chips, cores, and other mill waste.....	..do.....	(S)	(S)	78.2	1.2
	Chemicals:					
147701	Sulfur.....	1,000 long tons..	160.5	6.5	149.6	4.0
281211	Chlorine.....	1,000 short tons..	302.5	18.1	229.4	15.2
281238	Sodium hydroxide (caustic soda)(100% NaOH).....	1,000 short tons..	421.8	21.8	348.0	17.4
281976	Sodium sulfate (including salt cake)(100% Na <sub>2</sub> SO <sub>4</sub> ).....	1,000 short tons..	156.5	4.7	207.5	4.6
281611	Titanium dioxide, composite and pure(100% TiO <sub>2</sub> ).....	1,000 lbs.....	(S)	(S)	222	(Z)
281961	Aluminum sulfate(17% Al <sub>2</sub> O <sub>3</sub> ).....	1,000 short tons..	(S)	(S)	14.9	0.6
289119	Rosin sizing.....	Million lbs.....	(S)	(S)	6.0	0.9
327401	Lime.....	1,000 short tons..	274.2	4.5	127.6	2.2
	Woodpulp:					
261102	Produced at affiliated or associated mills except your pulpmill at this location.....	1,000 short tons (air dry basis)..	(S)	(S)	11.0	1.3
261102	Own woodpulp, produced at the same location.....	..do.....	196.8	(X)	149.9	(X)
	Wastepaper:					
941111	Mixed.....	1,000 short tons..	(S)	(S)	-	-
941112	News.....	..do.....	(S)	(S)	6.5	(Z)
941113	Corrugated.....	..do.....	(S)	(S)	(D)	(D)
941114	High grade pulp substitutes.....	..do.....	(S)	(S)	(D)	(D)
941115	High grade deinking.....	..do.....	-	-	27.5	1.5
	Other materials:					
209131	Cotton linters.....	Million lbs.....	219.9	13.4	116.9	4.6
941259	Other fibrous materials, including rags, straw, and bagasse....	..do.....	(S)	(S)	3.8	0.5
145501	Kaolin and ball clay.....	..do.....	(S)	(S)	15.1	0.6
204609	Starch.....	Million lbs.....	(S)	(S)	5.8	1.0
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	76.5	(X)	70.7
970000	All other materials, components, parts, containers, and supplies, n.s.k.....		(X)	6.4	(X)	16.0

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind.  
(X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (Z) Less than 0.1 when rounded.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2611, these small establishments accounted for approximately 0.2 percent of payrolls and 0.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

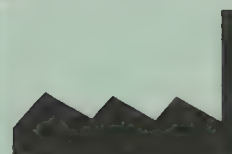
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Papermills, except building paper

SIC Code 2621

**preliminary  
report**

The Papermills, Except Building Papermills include establishments primarily engaged in manufacturing paper (except building paper, industry 2661) from woodpulp and other fibers, and which may also manufacture converted paper products. Pulp mills combined with papermills and not separately reported, are also included in this industry; where separately reported, they are classified in industry 2611. Establishments primarily engaged in manufacturing converted paper products from purchased paper stock are classified in groups 264 or 265.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Papermills, Except Building Paper, amounted to \$4,835.5 million, an increase of 26 percent compared with 1963. Value added by manufacture at \$2,343.8 million in 1967 was 26 percent more than value added in 1963. Average employment in the industry showed an increase of 8 percent from 1963 to a total of 139.8 thousand employees in 1967.

Of the \$4,835.5 million total value of shipments and other receipts of establishments classified as papermills, except building paper, \$329.6 million were products primary to other industries; and \$48.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 93 percent of the total

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2621.--PAPERMILLS, EXCEPT BUILDING PAPER														
1967 Census....	351	311	139.8	1,120.1	112.2	248.7	848.7	2,343.8	2,509.8	4,835.5	550.1	555.0	93	94
1966 ASM <sup>1</sup> .....	(NA)	(NA)	135.0	1,043.3	109.1	246.2	804.4	2,330.3	2,496.2	4,804.8	575.0	511.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	132.6	963.3	107.2	238.1	743.3	2,066.2	2,263.7	4,318.2	496.2	459.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	129.6	917.6	105.8	236.0	709.9	1,974.0	2,078.1	4,000.0	295.6	431.7	(NA)	(NA)
1963 Census....	325	313	129.8	877.9	105.6	234.6	682.0	1,857.2	1,971.0	3,824.9	232.8	430.2	90	92
1962 ASM <sup>1</sup> .....	(NA)	(NA)	132.3	859.9	108.7	238.3	663.5	1,904.9	1,967.8	3,857.2	277.1	414.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	132.4	818.0	108.4	237.5	638.1	1,865.2	1,871.6	3,712.9	285.2	403.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	136.7	820.3	112.7	246.3	629.9	1,877.0	1,887.7	3,754.7	246.5	411.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	134.8	790.2	111.8	247.8	614.6	1,829.9	1,848.8	3,668.6	214.5	410.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	354	318	131.3	741.0	109.3	238.4	570.0	1,542.7	1,728.6	3,259.4	258.8	398.1	90	95

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

The total value of papermills, except building paper, shipped by all producers in 1967 was \$4,733.9 million of which \$4,457.5 million, or 94 percent, were shipped by plants classified in industry 2621, Papermills, Except Building Paper, while the remainder was shipped by plants

classified in other industries. This percent, called the coverage ratio, was 92 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2621, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M26A, Pulp, Paper, and Board.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2621.--PAPERMILLS, EXCEPT BUILDING PAPER												
United States, total.....	351	311	139.8	1,120.1	112.2	248.7	848.7	2,343.8	2,509.8	4,835.5	550.1	129.8	1,857.2
New England.....	91	79	27.5	215.0	21.6	50.2	157.5	418.0	469.5	884.0	60.0	27.2	347.1
Maine.....	15	15	14.3	113.9	11.4	25.9	86.1	221.2	249.9	467.9	25.4	13.5	190.7
New Hampshire.....	17	13	2.6	16.9	2.2	4.9	13.6	41.0	51.3	92.2	(D)	2.3	20.9
Vermont.....	7	■	0.5	2.9	0.4	0.9	2.4	7.9	10.9	18.3	(D)	0.5	3.8
Massachusetts.....	42	37	9.3	73.4	7.1	16.9	50.4	128.5	137.1	265.8	22.6	10.2	116.8
Connecticut.....	10	8	0.9	7.9	0.6	1.5	5.1	19.5	20.4	39.7	(D)	0.6	14.8
Middle Atlantic.....	92	78	24.6	193.3	19.7	43.9	147.0	364.3	429.2	790.2	50.9	24.6	304.3
New York.....	53	42	11.8	90.9	9.7	21.8	72.2	171.7	215.9	387.1	15.7	12.0	138.7
New Jersey.....	14	12	3.0	23.8	2.2	5.0	17.0	49.6	49.9	98.8	5.1	3.1	47.4
Pennsylvania.....	25	24	9.8	78.6	7.8	17.2	57.8	142.9	163.4	304.3	30.0	9.5	118.2
East North Central....	84	81	36.9	300.5	29.7	67.1	228.2	583.5	651.3	1,236.2	101.3	31.6	455.4
Ohio.....	16	16	9.6	78.9	7.7	17.9	57.9	169.2	147.7	314.8	14.2	7.5	124.3
Michigan.....	23	21	6.8	55.1	5.4	12.5	42.8	89.6	138.0	227.5	28.1	5.5	75.3
Wisconsin.....	37	37	19.3	157.7	15.5	34.4	120.9	307.4	349.7	660.0	57.5	18.1	248.6
West North Central....	7	6	4.9	39.6	4.0	8.1	29.4	62.9	78.4	140.5	8.1	4.7	54.5
South Atlantic.....	21	18	14.1	108.7	11.1	24.9	80.2	282.2	251.6	530.4	34.4	12.2	183.2
Delaware.....	4	4	0.3	2.4	0.3	0.7	1.9	3.8	5.3	9.1	0.3	0.2	2.4
North Carolina.....	7	5	6.1	45.3	4.7	10.7	33.1	117.0	97.5	213.9	15.2	5.4	77.5
East South Central....	11	9	10.4	88.3	8.5	18.1	68.3	201.3	185.6	384.0	46.0	9.6	160.6
Alabama.....	4	4	5.9	50.0	4.8	10.3	38.9	108.1	95.3	202.5	37.4	5.4	92.1
West South Central....	15	14	8.8	72.6	7.2	15.4	57.8	170.4	170.8	337.6	178.5	8.7	136.9
Louisiana.....	6	6	3.8	31.4	3.2	7.0	25.7	74.1	73.8	144.1	(D)	(D)	(D)
West.....	30	26	12.5	101.9	10.4	21.0	80.3	261.3	273.4	532.6	71.0	11.3	215.2
Washington.....	13	12	7.4	58.0	6.2	12.0	45.9	153.1	138.7	292.0	(D)	7.3	137.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production for all purposes* (1,000 short tons)	Total value of shipments, including interplant transfers		Interplant transfers	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
			1967			
2621- --	PAPERMILL PRODUCTS, EXCEPT BUILDING PAPER, TOTAL.....	20,933.0	20,655.7	4,733.9	4,329.7	810.3
26211 00	Newsprint.....	2,547.2	2,468.1	321.8	(D)	(D)
26212 --	Groundwood paper, uncoated.....	1,189.9	1,149.8	197.2	(D)	(D)
26212 10	Publication and printing.....	986.5	951.5	156.3	(D)	(D)
26212 30	Body stock for coating.....	203.4	198.3	40.9	54.6	11.4
26212 50	Other converting and miscellaneous groundwood.....					
26213 --	Coated printing and converting paper.....	3,156.9	3,122.4	817.2	38.4	11.2
26213 10	Coated, one side.....	348.9	337.4	116.2	9.1	3.7
26213 30	Coated, two sides.....	2,797.9	2,775.0	697.6	(D)	(D)
26213 50	Prime-coated body stock for further coating: Produced for shipment to establishments without papermaking equipment.....	10.1	10.0	3.4	(D)	(D)
26213 60	Produced for own use or for shipment to establishments with papermaking equipment (memo only, not included in totals).....	211.0	(X)	(X)	(X)	(X)
26214 --	Book paper, uncoated.....	2,305.0	2,262.9	592.1	123.8	29.9
26214 10	Publication and printing.....	1,414.5	1,394.3	384.3	116.3	28.1
26214 30	Body stock for coating: Produced for shipment to establishments without papermaking equipment.....	41.5	40.9	10.6	-	-
26214 50	Produced for own use or for shipment to establishments with papermaking equipment (memo only, not included in totals).....	221.1	(X)	(X)	(X)	(X)
26214 60	Other converting and miscellaneous book paper.....	849.0	827.7	197.2	7.5	1.8
26215 --	Bleached bristols (excluding cotton fiber index and bogus).....	984.3	956.5	210.1	30.7	7.6
26215 10	Tabulating index.....	543.0	533.3	102.9	(D)	(D)
26215 30	Tag and file folder.....	241.6	233.6	48.6	(D)	(D)
26215 50	Other uncoated bristols.....	150.0	144.1	43.7	(D)	(D)
26215 60	Coated bristols.....	49.7	45.5	14.9	(D)	(D)
26216 --	Writing and related papers.....	2,488.9	2,495.7	907.0	176.6	51.3
26216 10	Writing, cotton fiber, including cotton fiber index.....	159.8	154.9	97.9	(D)	(D)
26216 30	Writing, chemical woodpulp.....	1,840.2	1,862.9	561.6	148.8	40.6
26216 50	Cover, text.....	191.9	186.4	79.7	(D)	(D)
26216 70	Thin paper.....	229.9	226.4	147.1	13.9	6.7
26216 90	Other writing, and related paper.....	67.1	65.1	20.7	(D)	(D)
26217 --	Unbleached kraft packaging and industrial converting paper.....	3,541.6	3,533.4	500.9	1,249.7	168.4
26217 10	Wrapping.....	390.6	383.1	59.4	63.6	9.4
26217 30	Shipping sack.....	919.2	906.5	133.1	412.5	58.6
26217 50	Bag and sack (other than shipping sack).....	1,601.8	1,614.2	204.3	668.9	82.8
26217 60	Other converting (18 pounds and over).....	630.0	629.6	103.4	104.7	17.6
26218 --	Packaging and industrial converting paper except unbleached kraft ...	1,135.2	1,121.8	292.2	277.4	68.9
26218 10	Wrapping.....	203.1	199.2	43.4	48.7	12.4
26218 30	Shipping sack including combination kraft and rope bleached and semibleached.....	78.2	75.2	12.9	34.2	7.4
26218 50	Other bag and sack.....	182.0	183.6	33.7	69.7	12.9
26218 60	Other converting (18 pounds and over).....	474.9	465.2	116.8	97.2	22.5
26218 80	Glassine, greaseproof and vegetable parchment.....	197.0	198.6	85.4	27.6	13.7
26219 00	Special industrial paper.....	392.2	391.8	193.5	19.1	13.5
26210 --	Tissue paper and other machine creped paper.....	3,191.8	3,153.3	692.5	2,229.0	431.0
26210 10	Sanitary paper: Toilet tissue.....	1,143.0	1,135.5	236.7	838.7	152.1
26210 30	Facial tissue, other than toweling napkin, and toilet.....	366.6	364.2	94.4	273.4	65.7
26210 50	Napkin.....	337.9	343.2	77.4	184.6	36.0
26210 60	Toweling, excluding wiper stock but including facial tissue stock for towels.....	978.8	943.0	181.5	767.3	137.0
26210 70	Other sanitary, including sanitary napkin stock, wadding and wiper stock.....	127.3	125.1	35.4	81.5	21.6
26210 80	Tissue paper, excluding sanitary and thin.....	238.2	242.3	67.1	83.5	18.6
26210 00	Papermills, except building papermills, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	8.8	(X)	(X)
26210 02	Papermills, except building papermills, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	(X)	0.6	(X)	(X)

See footnotes at the end of this report.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production for all purposes* (1,000 short tons)	Total value of shipments, including interplant transfers		Interplant transfers	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
			1963			
2621- --	PAPERMILLS, EXCEPT BUILDING PAPERMILLS, TOTAL.....	17,012.5	17,174.1	3,724.0	4,297.5	817.2
26211 11	Newsprint.....	2,213.4	2,236.5	270.8	128.9	15.8
26212 --	Groundwood paper, uncoated.....	956.4	982.5	165.6	29.8	5.8
26212 23	Publication and printing.....	806.7	811.1	134.0	-	(X)
26212 25	Body stock for coating.....	35.2	35.2	6.9	25.8	4.3
26212 29	Other converting and miscellaneous groundwork.....	114.5	136.2	24.7	4.0	1.5
26213 --	Paper-machine coated paper.....	2,114.0	2,171.8	498.6	11.7	2.7
	Printing and converting paper:					
26213 11	Coated, one side.....	174.2	181.5	61.3	6.6	1.4
26213 13	Coated, two sides.....	1,939.8	1,990.3	437.4	5.1	1.4
26214 --	Book paper, uncoated.....	1,886.3	2,050.7	500.1	291.7	66.3
26214 12	Publication and printing.....	1,151.7	1,159.4	303.3	122.7	30.1
26214 35	Body stock for coating.....	(S)	229.3	51.8	126.3	25.2
26214 39	Other converting and miscellaneous book.....	700.9	662.0	145.0	42.7	11.0
26215 --	Fine paper, including thin paper.....	2,103.6	2,090.4	762.6	127.8	35.0
26215 42	Writing, cotton fiber, including cotton fiber index.....	118.8	123.7	80.0	1.0	0.9
26215 52	Writing, chemical wood pulp.....	1,480.8	1,478.5	452.0	102.1	28.1
26215 62	Bristols, (except cotton fiber index and bogus).....	156.0	138.3	38.5	17.5	3.0
26215 72	Cover, text, and colored school paper.....	172.8	167.7	63.4	1.6	0.7
26215 82	Thin paper.....	175.1	182.2	128.7	5.6	2.3
26216 --	Coarse paper.....	4,250.9	4,190.5	721.3	1,573.9	257.1
	Unbleached kraft paper:					
26216 01	Wrapping.....	384.3	405.8	59.7	56.9	8.4
26216 14	Shipping sack.....	884.7	869.9	116.6	377.0	50.1
26216 17	Bag and sack (other than shipping sack).....	1,251.4	1,266.5	155.5	750.6	99.4
26216 29	Other converting (18 lbs. and over).....	664.6	591.5	111.0	116.8	24.0
26216 32	Glassine, greaseproof and vegetable parchment.....	193.8	194.0	79.6	67.6	22.7
	Other coarse paper:					
26216 42	Wrapping.....	191.3	213.6	50.0	34.5	8.5
26216 53	Shipping sack including combination kraft and rope, bleached and semibleached.....	67.0	64.4	13.7	27.7	6.5
26216 55	Other bag and sack.....	130.4	125.0	23.9	57.0	10.3
26216 59	Other converting (18 lbs. and over).....	483.4	459.7	111.3	85.8	27.3
26217 59	Special industrial paper (excluding windshield wiper stock and industrial wipe).....	911.6	888.2	255.0	43.8	17.2
26218 --	Sanitary tissue stock.....	2,576.4	2,561.0	547.4	2,087.5	416.9
	Sanitary tissue stock:					
26218 12	Toweling (excludes wiper stock but includes facial tissue stock for towels).....	666.1	645.6	114.8	582.6	98.1
26218 32	Toilet tissue.....	1,054.6	1,038.1	213.2	893.2	176.2
26218 42	Napkin.....	262.5	260.0	60.2	164.4	35.0
26218 51	Facial tissue stock other than toweling, napkin and toilet.....	278.6	311.5	76.4	284.7	67.2
26218 62	Other sanitary tissue stock and sanitary napkin stock wadding (include wiper stock).....	78.5	78.4	21.3	55.4	14.4
26218 78	Tissue paper, excluding sanitary and thin.....	236.0	227.3	61.4	107.2	26.0
26210 00	Papermills, except building papermills, n.s.k.....	(X)	2.5	2.7	2.5	0.5

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

\* The production total shown for total paper and board does not include any tonnage for the value of shipments reported in product codes 26210 00 and 26210 02.

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2621.--PAPERMILLS, EXCEPT BUILDING PAPER					
	Materials and supplies, total.....		(X)	2,188.1	(X)	1,750.0
	Pulpwood:					
	Softwood:					
	Bolts and logs:					
241101	Spruce and true fir.....	1,000 cords of				
		128 cu. ft.....	2,386.8	73.9	2,474.0	70.9
241102	Hemlock.....	do.....	869.8	21.5	955.6	25.4
241103	Jack pine.....	do.....	742.3	19.1	705.8	16.3
241104	Southern pine.....	do.....	6,090.4	139.9	5,002.8	101.9
241105	Other softwoods (include Douglas fir).....	do.....	685.7	15.2	1,092.7	22.4
242157	Chips.....	do.....	4,671.6	96.4	2,669.1	48.2
242015	Slabs, cores, and other mill waste.....	do.....	162.1	1.4	284.5	3.9
	Hardwood:					
	Bolts and logs:					
241106	Northern mixed hardwoods.....	do.....	1,804.0	37.2	1,322.5	26.9
241107	Poplar (aspen and popple).....	do.....	1,316.2	33.3	1,194.3	24.5
241108	Southern mixed hardwoods.....	do.....	1,769.5	32.9	(NA)	(NA)
241119	Other hardwoods.....	do.....	228.6	4.7	405.2	7.8
242013	Slabs, chips, cores, and other mill waste.....	do.....	721.3	15.5	306.7	5.9
081111	Cost of stumpage cut (timber, excluding land) for use in this establishment.....		(X)	4.4	(X)	(NA)
	Chemicals:					
147701	Sulfur.....	1,000 long tons...	250.4	10.0	243.7	6.9
281211	Chlorine.....	1,000 short tons..	473.3	28.1	394.3	28.2
281238	Sodium hydroxide (caustic soda) (100% NaOH).....	do.....	372.6	20.3	270.2	17.0
281228	Sodium carbonate (soda ash) (98-100% Na <sub>2</sub> CO <sub>3</sub> ).....	do.....	217.2	8.3	187.2	6.9
281976	Sodium sulfate (including salt cake) (100% Na <sub>2</sub> SO <sub>4</sub> ).....	do.....	601.8	17.5	431.2	13.4
281611	Titanium dioxide, composite and pure (100% TiO <sub>2</sub> ).....	Million lbs.....	186.7	45.4	137.6	34.5
281961	Aluminum sulfate (17% Al <sub>2</sub> O <sub>3</sub> ).....	1,000 short tons..	310.6	14.1	242.3	10.1
289119	Rosin sizing.....	Million lbs.....	171.8	23.4	145.4	20.8
327401	Lime.....	1,000 short tons..	499.6	9.8	537.2	9.5
	Woodpulp:					
261102	Produced at affiliated or associated mills except your pulp-mill at this location.....	1,000 short tons (air dry basis)..	2,426.6	289.7	1,973.1	226.0
261102	Own woodpulp, produced at the same location.....	do.....	13,814.3	(X)	10,323.8	(X)
261104	Purchased (market) woodpulp.....	do.....	2,894.7	370.3	2,629.9	330.6
	Wastepaper:					
941111	Mixed.....	1,000 short tons..	453.3	27.6	386.7	22.3
941112	News.....	do.....	66.1	2.7	46.5	1.9
941113	Corrugated.....	do.....	102.2	3.6	79.4	2.6
941114	High grade pulp substitutes.....	do.....	191.2	14.4	222.8	16.7
941115	High grade deinking.....	do.....	353.9	16.4	401.6	19.7
	Other materials:					
209131	Cotton linters.....	Million lbs.....	48.3	5.5	32.4	3.8
261122	Linter pulp.....	1,000 short tons..	26.8	8.6	24.8	6.2
941259	Other fibrous materials, including rags, straw and bagasse...	do.....	147.1	29.9	183.2	27.3
145501	Kaolin and ball clay.....	do.....	1,442.1	56.6	1,126.5	37.7
204609	Starch.....	1,000 lbs.....	979.4	69.2	661.4	49.8
970099	All other materials, and components, parts, containers, and supplies consumed.....		(X)	571.6	(X)	449.6
970000	All other materials, components, parts, containers, and supplies, n.s.k.....		(X)	49.7	(X)	54.1

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2621, these small establishments accounted for approximately 0.01 percent of payrolls and 0.01 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

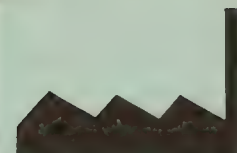
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U.S. DEPARTMENT OF COMMERCE





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Paperboard mills

SIC Code 2631

Paperboard Mills include establishments primarily engaged in manufacturing paperboard, including paperboard coated on the paperboard machine, from woodpulp and other fibers; and which may also manufacture converted paperboard products. Pulp mills combined with paperboard mills, and not separately reported, are also included in this industry; where separately reported, they are classified in industry 2611. Establishments primarily engaged in manufacturing converted paperboard products from purchased paperboard are classified in Groups 264 or 265, and building board in industry 2661.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as paperboard mills amounted to \$2,903.5 million, an increase of 25 percent compared with 1963. Value added by manufacture at \$1,503.4 million in 1967 was 27 percent more than value added in 1963. Average employment in the industry showed an increase of 6 percent from 1963 to a total of 67.0 thousand employees in 1967.

Of the \$2,903.5 million total value of shipments and other receipts of establishments classified as paperboard mills, \$440.5 million were products primary to other industries; and \$18.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 85 percent of the total manufactured

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2631.--PAPERBOARD MILLS													
1967 Census....	282	263	67.0	534.0	53.7	118.2	405.5	1,503.4	1,404.7	2,903.5	394.3	191.7	85	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	65.2	499.3	52.3	116.5	380.1	1,460.5	1,396.5	2,853.4	255.0	182.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	64.6	469.7	52.2	116.3	360.1	1,382.8	1,274.3	2,652.5	200.1	169.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	64.2	450.4	52.0	116.3	345.3	1,271.4	1,213.7	2,491.1	214.4	157.0	(NA)	(NA)
1963 Census....	271	259	63.4	429.0	51.3	113.1	327.0	1,186.2	1,131.2	2,316.0	159.5	149.9	87	90
1962 ASM <sup>1</sup> .....	(NA)	(NA)	58.5	382.5	47.1	105.2	293.8	995.4	1,034.2	2,034.6	125.6	135.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	56.9	360.4	45.7	102.6	275.6	921.2	968.7	1,899.9	108.4	131.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	58.3	353.8	46.9	105.2	271.1	940.4	925.4	1,882.5	135.7	128.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	58.5	345.8	47.5	107.9	269.4	907.0	944.3	1,875.6	117.3	125.1	(NA)	(NA)
1958 Census <sup>2</sup> ....	252	250	57.1	321.8	47.5	102.8	252.2	840.1	855.2	1,690.9	102.1	130.0	90	90

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 87 percent in 1963.

The total value of paperboard shipped by all producers in 1967 was \$2,663.1 million of which \$2,445.0 million, or 92 percent, were shipped by plants classified in industry 2631, Paperboard Mills, while the remainder was shipped by plants classified in other industries. This percent,

called the coverage ratio, was 90 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2631, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M26A, Pulp, Paper, and Board.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2631.--PAPERBOARD MILLS												
United States, total.....	282	263	67.0	534.0	53.7	118.2	405.5	1,503.4	1,404.7	2,903.5	394.3	63.4	1,186.2
New England.....	33	29	3.2	23.8	2.5	5.9	18.8	49.8	46.9	96.6	4.4	3.7	41.4
Massachusetts.....	10	10	1.4	10.0	1.1	2.5	7.7	19.2	15.6	34.6	0.9	1.4	16.1
Connecticut.....	11	10	1.2	9.4	0.9	2.2	7.6	21.8	23.1	45.2	1.2	1.6	18.1
Middle Atlantic.....	62	57	7.1	55.1	5.9	14.0	42.5	121.6	124.9	246.3	9.7	7.8	98.8
Pennsylvania.....	19	18	2.5	19.6	2.1	4.9	14.8	43.2	37.1	80.6	(D)	2.5	34.1
North Central.....	77	75	13.8	105.9	11.1	25.2	82.5	255.5	233.1	487.5	45.6	13.4	210.5
Indiana.....	8	8	1.4	10.4	1.2	2.6	8.0	23.7	21.5	45.2	(D)	1.6	22.4
Illinois.....	12	11	2.2	15.5	1.7	3.7	12.4	35.3	29.9	64.8	(D)	2.2	29.0
South Atlantic.....	47	44	23.5	189.6	18.6	40.3	141.2	564.3	547.7	1,107.8	83.0	21.4	465.8
Virginia.....	8	8	5.0	40.3	3.9	8.6	28.8	123.0	94.2	215.7	8.3	4.6	88.8
South Carolina.....	5	5	4.0	33.8	3.1	6.8	24.1	103.5	93.5	195.5	14.1	3.6	76.6
Georgia.....	10	10	6.5	51.9	5.1	10.8	38.4	187.3	178.8	366.1	32.2	6.7	171.2
Florida.....	8	7	3.9	32.3	3.2	6.9	24.9	91.0	102.6	192.6	6.1	3.9	83.7
East South Central....	17	16	4.4	35.6	3.4	7.4	26.3	127.2	104.3	230.7	109.1	2.8	60.3
West South Central....	14	12	7.8	64.0	6.3	13.2	47.6	194.9	165.7	360.2	120.1	7.9	157.0
Louisiana.....	5	4	4.7	39.8	4.0	8.2	31.4	103.5	93.8	196.9	(D)	5.4	91.3
West.....	32	30	7.2	60.0	5.9	12.2	46.8	190.2	182.2	374.4	22.3	6.3	152.5
Oregon.....	6	6	1.8	16.4	1.5	3.2	12.7	45.6	56.7	103.5	4.0	1.2	31.0
California.....	17	16	2.5	20.4	2.1	4.4	16.5	44.2	49.1	93.7	10.3	2.6	52.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production for all purposes*  (1,000 short tons)	Total value of shipments, including interplant transfers		Interplant transfers		
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)	
			1967				
2631- --	PAPERBOARD MILL PRODUCTS,TOTAL.....	22,804.9	22,347.7	2,663.1	6,533.9	764.7	
26311 --	Unbleached kraft packaging and industrial converting paperboard.....	9,241.3	8,960.6	976.5	2,212.2	250.6	
26311 10	Unbleached linerboard.....	8,801.9	8,532.5	923.2	2,090.7	237.9	
26311 30	Corrugating medium.....	(D)	(D)	(D)	(D)	(D)	
26311 50	Folding carton type board.....	204.1	199.1	27.1	(D)	(D)	
26311 70	Tube, can and drum paperboard.....	112.8	109.4	12.9	(D)	(D)	
26311 90	Other unbleached packaging and industrial converting kraft paperboard.....	(D)	(D)	(D)	(D)	(D)	
26312 --	Bleached packaging and industrial converting paperboard.....	3,030.9	2,955.8	524.3	1,064.3	183.7	
26312 10	Folding carton type board.....	1,071.8	1,006.3	184.5	333.1	61.9	
26312 30	Milk carton board.....	783.9	778.3	144.6	475.0	78.0	
26312 50	Heavyweight cup stock.....	379.6	376.0	64.8	(D)	(D)	
26312 60	Plate, dish, and food serving stock.....	242.5	238.9	42.4	72.6	12.1	
26312 70	Linerboard.....	240.8	231.6	34.3	46.0	6.2	
26312 80	Tube, can and drum paperboard.....	107.4	107.4	12.8	(D)	(D)	
26312 90	Other bleached packaging and industrial converting paperboard.....	204.9	217.3	40.9	45.7	8.0	
26313 --	Semichemical paperboard.....	3,019.5	2,929.3	311.8	(D)	(D)	
26313 10	Corrugating medium.....	(D)	(D)	(D)	(D)	(D)	
26313 30	Other semichemical paperboard.....	(D)	(D)	(D)	(D)	(D)	
26314 --	Combination paperboard: Shipping containerboard.....	1,767.8	1,765.0	176.0	442.9	41.1	
26314 10	Linerboard.....	627.5	614.3	61.0	217.3	20.7	
26314 30	Corrugating medium.....	818.4	827.6	83.1	119.4	11.5	
26314 50	Container chip and filler board.....	321.9	323.1	31.9	106.2	8.9	
26315 --	Combination paperboard: Bending.....	2,909.2	2,907.6	367.1	874.7	113.5	
26315 10	Bending chip.....	726.5	723.5	77.9	125.5	13.3	
26315 30	Kraftlined.....	165.6	164.6	21.5	36.2	4.8	
26315 50	Whitelined.....	748.1	746.0	90.8	214.4	25.8	
26315 70	Clay coated.....	1,014.9	1,021.9	147.1	440.5	62.2	
26315 90	Other combination bending paperboard.....	254.1	251.6	29.8	58.1	7.4	
26316 --	Combination paperboard: Nonbending.....	1,078.0	1,082.5	116.5	(D)	(D)	
26316 10	Plain chip.....	359.9	362.9	36.1	47.8	4.5	
26316 30	Newslined.....	270.3	267.0	26.2	36.7	3.2	
26316 50	Whitelined.....	93.8	94.5	13.3	(D)	(D)	
26316 60	Other combination nonbending paperboard.....	354.0	358.1	40.9	22.5	2.3	
26317 --	Special combination packaging and industrial converting paperboard..	1,609.9	1,598.3	147.4	651.6	52.1	
26317 30	Gypsum linerboard.....	689.4	683.1	57.6	(D)	(D)	
26317 50	Tube, can and drum stock.....	456.9	447.4	39.9	(D)	(D)	
26317 70	Panelboard and wallboard stock.....	116.4	114.7	9.3	(D)	(D)	
26317 90	Other special combination packaging and industrial converting paperboard.....	347.2	353.0	40.6	44.9	5.7	
26318 00	Wet machine board.....	148.3	148.6	35.6	(D)	(D)	
26310 00	Paperboard mills n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	7.7	(X)	(X)	
26310 02	Paperboard mills n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	(X)	0.2	(X)	(X)	
			1963				
2631- --	PAPERBOARD MILL PRODUCTS, TOTAL.....	18,380.1	18,602.4	2,184.7	6,861.9	819.0	
26311 --	Unbleached kraft packaging and industrial converting paperboard.....	10,425.1	10,395.0	1,106.0	3,567.2	381.3	
26311 12	Liners.....	7,123.8	6,974.6	766.1	2,436.8	266.6	
26311 32	Corrugating material.....	3,021.7	3,116.7	310.9	1,060.2	107.9	
26311 52	Container chipboard.....	279.6	303.7	29.0	70.1	6.8	
26312 11	Special food board.....	1,737.0	1,924.0	320.2	996.1	179.2	
26313 12	Folding boxboard stock, except special food board.....	3,164.9	3,182.6	420.0	1,201.9	166.4	
26314 12	Setup boxboard.....	636.9	690.8	66.2	60.2	6.0	

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Production for all purposes*  (1,000 short tons)	Total value of shipments, including interplant transfers		Interplant transfers		
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)	
			1963 <sup>1</sup> --CONTINUED				
	PAPERBOARD MILL PRODUCTS--CONTINUED						
26315 --	Combination paperboard: Bending.....	2,275.5	2,228.5	233.4	1,033.0	84.8	
26315 11	Special paperboard.....	1,581.5	1,575.0	144.6	906.4	70.2	
26315 31	Cardboard (including bogus bristol).....	108.8	106.6	26.5	11.4	2.5	
26315 51	Other bending board.....	240.2	199.9	26.0	63.9	7.0	
26315 98	Other nonbending board.....	345.0	347.0	36.4	51.3	5.2	
26315 12	Wet machine board.....	140.7	138.6	37.3	3.4	1.3	
26310 00	Paperboard mills, n.s.k.....	(x)	42.9	1.5	(x)	(x)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

\*The production total shown for total paper and board does not include any tonnage for the value of shipments reported in product codes 26310 00 and 26310 02.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2631.--PAPERBOARD MILLS					
	Materials, parts and supplies, total.....		(X)	1,185.0	(X)	988.4
	Pulpwood:					
	Softwood bolts and logs:					
241101	Spruce and true fir.....	1,000 cords of 128 cu. ft.....	(D)	(D)	63.2	1.2
241102	Hemlock.....	do.....	(D)	(D)	63.2	1.4
241103	Jack pine.....	do.....	(D)	(D)	20.8	(S)
241104	Southern pine.....	do.....	11,003.1	251.7	10,154.8	205.8
241105	Other softwoods (including Douglas fir).....	do.....	(D)	(D)	292.5	3.5
242157	Chips.....	do.....	6,211.6	115.0	3,916.4	56.0
242015	Slabs, cores, and other mill waste.....	do.....	276.9	5.2	122.3	1.9
	Hardwood bolts and logs:					
241106	Northern mixed hardwoods.....	do.....	359.5	6.1	215.4	3.3
241107	Poplar (aspen and popple).....	do.....	298.4	5.4	438.5	4.8
241108	Southern mixed hardwoods.....	do.....	3,257.2	59.0	457.0	7.2
241119	Other hardwoods.....	do.....	252.0	4.7	451.7	6.6
242013	Slabs, chips, cores, and other mill waste.....	do.....	738.8	13.9	393.3	5.5
081111	Cost of stumpage cut (timber, excluding land).....		(X)	(D)	(X)	(NA)
	Chemicals:					
147701	Sulfur.....	1,000 long tons..	(NA)	2.2	70.8	2.4
281211	Chlorine.....	1,000 short tons.	203.3	11.8	144.4	10.0
281238	Sodium hydroxide (caustic soda).....	1,000 short tons (100% NaOH).....	303.7	16.1	117.4	6.8
281228	Sodium carbonate (soda ash).....	1,000 short tons (98-100% Na <sub>2</sub> CO <sub>3</sub> )	163.1	6.2	172.9	6.7
281976	Sodium sulfate (including salt cake).....	1,000 short tons (100% Na <sub>2</sub> SO <sub>4</sub> )...	722.0	21.5	552.5	17.0
281611	Titanium dioxide, composite and pure.....	Million lbs. (100% TiO <sub>2</sub> ).....	17.9	4.5	16.0	4.1
281961	Aluminum sulfate.....	1,000 short tons (17% Al <sub>2</sub> O <sub>3</sub> ).....	218.7	9.1	225.3	8.7
289119	Rosin sizing.....	Million lbs.....	134.0	15.8	219.6	22.5
327401	Lime.....	1,000 short tons.	280.1	5.1	199.8	3.5
	Wood pulp:					
261102	Produced at affiliated or associated mills except your pulp mill at this location.....	1,000 short tons (air dry basis).	505.0	40.3	300.8	23.3
261102	Own wood pulp, produced at the same location.....	do.....	12,123.0	(X)	11,307.6	(X)
261104	Purchased (market) wood pulp.....	do.....	273.4	28.6	419.8	44.6
	Waste paper:					
941111	Mixed.....	1,000 short tons.	1,887.6	36.4	2,437.5	46.9
941112	News.....	do.....	1,547.3	35.8	1,732.7	38.6
941113	Corrugated.....	do.....	2,773.3	74.5	2,503.3	66.0
941114	High grade pulp substitutes.....	do.....	713.7	38.9	774.6	51.5
941115	High grade deinking.....	do.....	128.0	4.9	96.5	4.4
	Other materials:					
209131	Cotton linters.....	Million lbs.....	(D)	(D)	(D)	(D)
941259	Other fibrous materials, including rags straw and bagasse.....	do.....	65.8	2.6	77.8	2.5
145501	Kaolin and ball clay.....	do.....	115.4	4.6	103.2	4.1
204609	Starch.....	Million lbs.....	245.1	19.2	205.4	16.5
970099	All other materials, and components, parts, containers, and supplies consumed.....		(X)	278.6	(X)	262.9
970000	All other materials, components, parts, containers and supplies, n.s.k.....		(X)	47.6	(X)	48.1

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind.

(X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2631, these small establishments accounted for approximately 0.02 percent of payrolls and 0.01 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES

MENT OF  
MERCE  
ATION



MC67(P)-26A-4

## INDUSTRY SERIES

### Building paper and building board mills

SIC Code 2661

**preliminary  
report**

Building Paper and Building Board Mills include establishments primarily engaged in manufacturing building paper and building board from wood pulp and other fibrous materials. Pulp mills combined with building paper and building board mills and not separately reported, are also included in this industry; where separately reported, they are classified in industry 2611.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified as Building Paper and Building Board Mills amounted to \$335.7 million, an increase of

19 percent compared with 1963. Value added by manufacture at \$180.7 million in 1967 was 18 percent more than value added in 1963. Average employment in the industry showed a decrease of 3 percent from 1963 to a total of 11.5 thousand employees in 1967.

Of the \$335.7 million total value of shipments and other receipts of establishments classified as building paper and building board mills, \$24.9 million were products primary to other industries; and \$11.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 97 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2661.--BUILDING PAPER AND BUILDING BOARD MILLS													
1967 Census....	93	73	11.5	81.1	9.8	21.1	66.3	180.7	153.2	335.7	20.3	31.0	92	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	12.0	79.7	10.3	22.1	65.2	194.6	162.7	351.2	17.7	34.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	11.6	73.5	9.8	21.3	59.6	169.2	147.2	316.5	18.0	27.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	11.5	71.4	9.8	21.2	58.4	165.9	139.4	304.2	12.2	27.2	(NA)	(NA)
1963 Census....	83	77	11.9	69.6	10.2	21.4	56.9	153.1	130.2	281.6	8.1	26.5	97	88
1962 ASM <sup>1</sup> .....	(NA)	(NA)	16.7	96.2	13.9	29.7	78.0	203.3	181.2	383.0	13.6	47.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	16.3	89.9	13.6	28.2	71.1	190.4	162.6	349.9	28.1	47.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	16.3	85.6	13.7	29.2	60.6	195.5	160.5	353.4	17.0	46.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	17.5	90.7	14.9	32.2	74.2	207.7	171.7	376.3	13.0	44.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	169	87	16.6	82.2	14.1	30.1	66.5	175.4	156.1	329.8	13.1	40.1	95	96

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of building paper and building board shipped by all producers in 1967 was \$316.2 million of which \$299.4 million, or 95 percent, were shipped by plants classified in industry 2661, Building Paper and Building Board Mills, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 88 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2661, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M26A, Pulp, Paper, and Board

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2661.--BUILDING PAPER AND BUILDING BOARD MILLS												
United states total.....	93	73	11.5	81.1	9.8	21.1	66.3	180.7	153.2	335.7	20.3	11.9	153.1
Northeast.....	22	19	2.7	18.7	2.1	4.8	14.7	40.6	35.1	75.6	5.6	2.7	34.9
Pennsylvania.....	8	6	0.5	3.7	0.4	1.0	3.0	9.7	7.0	16.5	(D)	0.6	8.3
North Central.....	28	21	3.3	23.0	2.9	6.1	18.9	54.8	48.6	105.3	3.1	2.9	35.3
South.....	39	24	4.8	33.8	4.1	8.8	27.9	74.0	58.8	132.6	10.9	4.9	65.9
North Carolina.....	3	1	0.1	0.3	0.1	0.1	0.3	0.6	0.6	1.2	(D)	(D)	(D)
Texas.....	5	4	0.2	1.0	0.1	0.3	0.9	1.7	1.7	3.4	(Z)	0.2	2.0
West.....	14	9	0.8	5.6	0.7	1.4	4.8	11.2	10.7	22.2	0.7	(D)	(D)
California.....	8	6	0.3	2.1	0.2	0.5	1.7	3.5	3.5	7.2	0.1	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes (1,000 short tons)	Total value of shipments, including interplant transfers		Interplant transfers		Production for all purposes (1,000 short tons)	Total value of shipments, including interplant transfers		Interplant transfers	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2661- --	BUILDING PAPER AND BOARD, TOTAL.....	2758.5	2774.7	316.2	862.4	71.6	2,591.6	2,595.8	299.5	704.7	55.4
26611 --	Insulating board:										
26611 10	Insulating board (Less than 31 lbs. per cu. ft.) (in short tons) <sup>1</sup> .....	1,295.7	1,301.1	177.1	63.0	6.7	1,139.1	1,160.1	171.3	35.9	3.4
26611 60	Insulating board (Less than 31 lbs. per cu. ft.) (1,000 sq. ft. 1/2" basis) <sup>1</sup> .....	3,297.6	3,313.1	(X)	(X)	(X)	3,039.1	3,052.7	(X)	(X)	(X)
26612 --	Construction paper:										
26612 00	Construction paper (dry basis before saturating).....	1462.8	1473.6	135.3	799.4	64.9	1,452.6	1,435.6	126.7	668.9	52.0
26610 00	Other products, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	3.6	(X)	(X)	}	(X)	(X)	1.5	(X)
26610 02	Other products, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	(X)	0.2	(X)	(X)		(X)	(X)	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>In 1963 the criteria was 26 lbs. or less per cu. ft.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2661.--BUILDING PAPER AND BOARD MILLS					
	Materials and supplies, total.....		(X)	119.5	(X)	101.5
	Pulpwood:					
	Softwood bolts and logs:					
241101	Spruce and true fir.....	1,000 cords of 128 cu. ft.....	(S)	(S)	8.5	(S)
241102	Hemlock.....	..do.....	(S)	(S)	-	-
241103	Jack pine.....	..do.....	(S)	(S)	53.0	0.9
241104	Southern pine.....	..do.....	297.8	5.9	318.3	5.6
241105	Other softwoods (including Douglas fir).....	..do.....	(S)	(S)	70.4	1.0
242157	Chips.....	..do.....	197.3	3.5	207.5	3.1
242015	Slabs, cores, and other mill waste.....	..do.....	(S)	(S)	(D)	(D)
	Hardwood bolts and logs:					
241106	Northern mixed hardwoods.....	..do.....	(S)	(S)	(D)	(D)
241107	Poplar (aspen and popple).....	..do.....	(S)	(S)	(D)	(D)
241108	Southern mixed hardwoods.....	..do.....	(S)	(S)	-	-
241119	Other hardwoods.....	..do.....	(S)	(S)	78.8	1.2
242013	Slabs, chips, cores, and other mill waste.....	..do.....	(S)	(S)	28.0	(S)
	Chemicals:					
281238	Sodium hydroxide (caustic soda).....	1,000 short tons (100% NaOH).....	(S)	(S)	(D)	(D)
281228	Sodium carbonate (soda ash).....	1,000 short tons (98-100% $\text{Na}_2\text{CO}_3$ ).....	(S)	(S)	(D)	(D)
281976	Sodium sulfate (including salt cake).....	1,000 short tons (100% $\text{Na}_2\text{SO}_4$ ).....	(S)	(S)	-	-
281611	Titanium dioxide, composite and pure.....	Million lbs. (100% $\text{TiO}_2$ ).....	(S)	(S)	1.8	0.6
281961	Aluminum sulfate.....	1,000 short tons (17% $\text{Al}_2\text{O}_3$ ).....	(S)	(S)	10.9	(S)
289119	Rosin sizing.....	Million lbs.....	(S)	(S)	8.7	(S)
327401	Lime.....	1,000 short tons.....	(S)	(S)	(D)	(D)
	Woodpulp:					
261102	Produced at affiliated or associated mills except your pulpmill at this location.....	1,000 short tons (air dry basis).....	(S)	(S)	14.7	0.5
261102	Own woodpulp, produced at the same location.....	..do.....	867.9	(X)	1,130.5	(X)
261104	Purchased (market) woodpulp.....	..do.....	(S)	3.2	31.7	3.1
	Waste paper:					
941111	Mixed.....	1,000 short tons.....	438.6	6.9	524.2	7.8
941112	News.....	..do.....	178.3	3.7	114.9	1.4
941113	Corrugated.....	..do.....	111.3	2.6	99.8	2.2
941114	High grade pulp substitutes.....	..do.....	(S)	(S)	(D)	(D)
941115	High grade deinking.....	..do.....	(S)	(S)	-	-
	Other materials:					
209131	Cotton linters.....	Million lbs.....	(S)	(S)	(D)	(D)
261122	Linter pulp.....	1,000 short tons.....	(S)	(S)	(D)	(D)
941259	Other fibrous materials, including rags, straw and bagasse.....	..do.....	343.0	6.6	338.5	6.8
149901	Asbestos.....	..do.....	99.8	10.0	90.1	9.6
145501	Kaolin and ball clay.....	..do.....	(S)	(S)	11.7	(S)
204609	Starch.....	Million lbs.....	57.2	3.0	48.7	2.5
970099	All other materials, and components, parts, containers, and supplies consumed.....	.....	(X)	67.8	(X)	40.5
970000	All other materials, components, parts, containers, and supplies, n.s.k.....	.....	(X)	6.3	(X)	9.0

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2661, these small establishments accounted for approximately 0.1 percent of payrolls and 0.1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-26B-1

## INDUSTRY SERIES

### Paper coating and glazing

SIC Code 2641

preliminary  
report

The Paper Coating and Glazing Industry includes establishments primarily engaged in manufacturing coated, glazed, or varnished paper from purchased paper. Establishments primarily engaged in manufacturing carbon paper are classified in industry 3955; and photographic and blue-print paper in industry 3861.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Paper Coating and Glazing Industry amounted to \$1,405.1 million, an increase of 21 percent compared with 1963. Value added

by manufacture at \$616.3 million in 1967 was 35 percent more than value added in 1963. Average employment in the industry showed an increase of 11 percent from 1963 to a total of 35.4 thousand employees in 1967.

Of the \$1,405.1 million total value of shipments and other receipts of establishments classified in the Paper Coating and Glazing Industry, \$220.1 million were products primary to other industries; and \$51.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 82 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2641. --PAPER COATING AND GLAZING														
1967 Census....	399	204	35.4	248.1	25.8	54.9	157.2	616.3	797.9	1,405.1	69.2	175.6	84	81
1966 ASM <sup>1</sup> .....	(NA)	(NA)	35.6	240.3	24.8	54.1	154.5	588.7	807.0	1,383.5	49.7	164.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	33.3	225.7	23.9	52.0	144.7	525.7	770.5	1,289.8	39.0	152.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	31.7	200.8	22.4	49.6	129.9	467.2	701.2	1,167.4	36.6	133.9	(NA)	(NA)
1963 Census....	387	181	32.0	200.8	23.3	49.9	130.3	457.4	709.9	1,161.6	45.6	139.0	82	78
1962 ASM <sup>1</sup> .....	(NA)	(NA)	31.1	190.6	22.3	47.8	121.2	470.0	653.4	1,114.8	36.7	122.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	29.7	176.8	21.5	45.9	113.1	413.0	574.1	979.4	31.2	113.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	29.6	167.7	21.7	46.1	108.2	386.2	560.9	941.6	20.7	105.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	29.0	158.4	21.5	46.0	103.9	364.9	549.0	908.7	29.3	104.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	340	176	27.8	143.5	20.7	43.4	94.2	319.6	486.7	805.2	16.8	97.4	84	81

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued January 1970

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of paper coating and glazing shipped by all producers in 1967 was \$1,364.4 million of which \$1,133.9 million, or 83 percent, were shipped by plants classified in industry 2641, Paper Coating and Glazing, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 78 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2641, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M26F, Converted Flexible Packaging Products.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2641. --PAPER COATING AND GLAZING												
United States, total.....	399	204	35.4	248.1	25.8	54.9	157.2	616.3	797.9	1,405.1	69.2	32.0	457.4
New England.....	61	33	5.2	37.9	3.7	8.3	23.7	80.1	104.6	183.4	12.3	4.2	53.3
Vermont.....	4	4	0.2	1.2	0.2	0.4	0.9	2.1	5.5	7.6	0.1	0.3	2.4
Rhode Island.....	6	4	0.2	1.3	0.1	0.3	0.8	2.5	3.6	6.1	0.1	(D)	(D)
Middle Atlantic.....	124	56	7.9	54.7	5.7	11.9	32.4	140.5	159.6	299.7	10.2	6.2	107.8
New York.....	58	20	2.2	13.8	1.8	4.0	8.8	28.1	40.8	68.7	1.5	1.7	17.5
New Jersey.....	41	23	3.4	26.5	2.2	4.6	13.9	49.8	83.8	134.3	4.4	3.1	44.4
Pennsylvania.....	25	13	2.2	14.4	1.6	3.3	9.7	62.7	35.0	96.7	4.3	1.3	45.9
North Central.....	117	69	17.1	121.5	12.4	26.4	78.5	320.1	403.4	718.6	40.9	16.7	237.9
Ohio.....	26	15	3.3	24.2	2.0	4.3	13.0	58.3	60.9	118.5	3.5	4.2	53.9
Illinois.....	34	19	3.8	26.2	2.8	5.7	15.6	82.9	68.8	149.6	(D)	2.4	34.6
Michigan.....	17	11	3.5	26.9	2.7	6.1	19.6	45.7	71.3	115.8	16.6	4.2	49.1
Wisconsin.....	18	14	3.7	26.1	2.9	6.2	18.6	51.5	108.3	160.7	8.9	3.0	39.2
South.....	45	27	3.0	16.9	2.3	5.0	11.6	43.3	71.6	113.7	2.9	3.2	34.7
South Atlantic.....	28	16	1.3	7.4	0.9	1.9	4.6	17.0	28.9	45.5	(D)	(D)	(D)
Georgia.....	5	3	0.2	0.9	0.1	0.3	0.6	2.4	6.7	9.0	(D)	0.3	5.3
Florida.....	6	4	0.1	0.9	0.1	0.2	0.6	1.4	3.1	4.5	0.1	(D)	(D)
Mountain.....	6	1	0.1	0.4	0.1	0.1	0.3	0.7	1.1	1.8	(Z)	(D)	(D)
Pacific.....	46	18	2.1	16.7	1.5	3.2	10.7	31.7	57.6	88.0	2.8	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2641- --	COATED AND GLAZED PAPER.....	(X)	1,364.4	(X)	1,170.7
26411 --	Printing paper coated at establishments other than where the paper was produced.....	(X)	145.9	(X)	147.9
26411 13	Coated one side.....	(NA)	174.0	184.8	173.8
26411 53	Coated two sides.....	174.8	170.0	173.7	74.1
26411 00	Printed paper coated at establishments other than where the paper was produced, n.s.k.....	(X)	1.9	(X)	-
26412 --	Oiled, waxed and wax-laminated paper, plain or printed.....	(X)	185.1	(NA)	213.3
26412 11	Oiled and similarly treated paper.....	<sup>e</sup> 89.3	38.5	40.1	19.1
	Waxed and wax-laminated paper:				
26412 21	Printed bread wraps.....	26.1	17.5	68.0	42.1
26412 31	Household waxed paper.....	56.1	29.4	95.7	49.3
26412 41	Delicatessen paper.....	29.7	14.4	18.2	8.8
26412 45	Locker, including freezer paper.....	<sup>e</sup> 12.9	5.5	16.0	6.3
26412 55	Biscuit and cracker inner wraps.....	16.5	8.7	14.9	7.4
26412 65	Cereal and similar inner wraps, except biscuit and cracker.....	10.4	5.1	12.3	5.9
26412 75	Frozen food carton overwraps.....	31.3	20.3	15.4	14.6
26412 81	Other waxed and wax-laminated paper, including candy wraps, cheese wraps, etc.....	84.9	43.5	180.4	59.0
26412 00	Wax and wax-laminated paper, n.s.k.....	(X)	2.2	(X)	0.8
26413 --	Gummed products.....	(X)	125.5	(X)	98.1
26413 12	Gummed sealing tape, paper base and reinforced base, used for sealing and securing.....	176.8	83.9	133.8	56.3
26413 14	Corrugators' box gummed tape used on manufacturers' joints of corrugated boxes.....	24.4	16.9	21.1	13.6
26413 31	Gummed flat paper including stock labels unprinted.....	27.7	18.8	31.6	26.6
26413 00	Gummed products, n.s.k.....	(X)	5.9	(X)	1.7
26414 --	Pressure sensitive tape.....	(X)	430.6	(X)	311.7
	Single-faced tape:				
26414 13	Paper backing (excluding electrical).....	(NA)	177.4	62.7	119.4
26414 33	Cloth backing (excluding electrical and surgical adhesive).....	(NA)	13.4	(X)	11.9
26414 41	Plastic backing, excluding electrical (including cellophane, anticorrosive, and other transparent material).....	(NA)	109.5	(X)	122.7
26414 43	Plastic backing, electrical.....	(X)	30.9		
26414 47	Other backing, electrical.....	(X)	23.1		
26414 53	Reinforced and laminated tape (all backings).....	(X)	35.5		
26414 59	Other backings, excluding rubber.....	(X)	9.7	31.4	34.7
26414 61	Double-faced tape.....	(X)	10.2	18.4	21.3
26414 75	Pressure sensitive labels (unprinted).....	<sup>e</sup> 18.9	16.7		
26414 00	Pressure sensitive tape, n.s.k.....	(X)	4.2	(X)	1.7
26415 --	Laminated or coated wrappers, except waxed (rolls and sheets).....	(X)	160.3	(X)	119.3
26415 11	Paper, waterproof (plain, reinforced, creped, or lined).....	166.2	49.3	97.8	39.6
26415 41	Paper, moistureproof and vapor barrier.....	<sup>e</sup> 85.4	35.4	76.2	30.1
26415 50	Laminated and coated films and papers, excluding polyethylene and foil.....	(NA)	74.8	87.5	48.2
26415 00	Laminated or coated wrappers, except waxed, n.s.k.....	(NA)	0.8	(X)	1.3
26416 --	Other coated and processed paper, except wrappers.....	(X)	287.5	(X)	272.9
26416 11	Casein and similarly coated paper.....	(NA)	20.9	82.3	18.9
26416 21	Special coated paper (mica, pyroxylin, lacquer, metallic other than foil, etc.).....	<sup>e</sup> 25.4	34.4	32.9	42.0
26416 41	Processed plain paper (embossed, leatherette, etc.).....	80.1	26.2	43.7	13.5
26416 55	Processed coated paper (embossed, leatherette, etc.).....	<sup>e</sup> 14.9	9.7	16.0	11.3
	Laminated or coated rolls and sheets, plain or printed, except wax, laminated paper or foil:				
26416 61	Polyethylene coated paper.....	105.0	57.3	(NA)	(S)
26416 70	Polyethylene laminated or coated to materials other than foil.....	<sup>e</sup> 56.8	69.3	(NA)	21.2
26416 98	Other coated and processed paper, including soap impregnated paper.....	<sup>e</sup> 53.9	58.8	(X)	48.7
26416 00	Processed and coated paper, n.s.k.....	(X)	11.0	(X)	4.0
26410 00	Paper coating and glazing, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	25.1	(X)	7.6
26410 02	Paper coating and glazing, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	4.4		

Footnotes on next page.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

FOOTNOTES FOR TABLE 3--INDUSTRY 2641

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable. - Represents zero.

<sup>1</sup>Data for 1967 and 1963 not directly comparable because 1963 data include some production of paper coated at point of primary paper production but on off-machine facility.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2641.--PAPER COATING AND GLAZING					
	Materials, parts, and supplies, total.....		(X)	758.2	(X)	677.4
	Paper:					
262105	Owned paper, produced at this location or at other affiliated or associated mills.....	1,000 short tons.	489.4	129.3	544.0	142.0
262106	Purchased (market) paper.....	...do.....	666.0	185.8	548.5	148.1
	Paperboard:					
263102	Owned paperboard, produced at this location or at other affiliated or associated mills.....	...do.....	96.6	18.9	54.0	8.0
263103	Purchased (market) paperboard.....	...do.....	<sup>e</sup> 106.0	19.6	371.1	73.9
289111	Glues and adhesives.....	Million lbs.....	<sup>e</sup> 256.9	42.0	178.1	21.5
282130	Thermoplastic resins including modified resins. (including resin content of vinyls and dry basis for cellulose, polyethylenes, polypropylenes, styrenes, etc. Including granules, pellets, powder, liquid, etc., but exclude sheets, rods tubes, and other shapes).....	...do.....	180.1	43.5	142.3	26.5
289301	Printing ink (complete formulations).....	...do.....	25.6	14.6	18.9	10.4
291106	Petroleum wax.....	...do.....	156.1	12.4	171.4	15.3
282103	Cellulosic plastics, sheet and rolls, and cellophane.....	...do.....	<sup>e</sup> 23.8	16.3	26.2	13.5
307916	Unsupported plastics film, sheets and sheeting, except cellulosic.....	...do.....	<sup>e</sup> 110.0	43.9	(NA)	21.9
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	195.9	(X)	202.0
976000	Materials, containers and supplies, n.s.k.....		(X)	36.0	(X)	-

- Represents zero.

(X) Not applicable.

<sup>e</sup>From 10 to 30 percent of this figure was estimated.

(NA) Not available.

n.s.k. Not specified by kind.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2641, these small establishments accounted for approximately 0.4 percent of payrolls and 0.3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

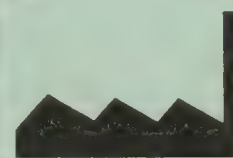
OFFICIAL BUSINESS

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE



# 1967 CENSUS OF MANUFACTURES

MC67(P)-26B-2



## INDUSTRY SERIES

### Envelopes

SIC Code 2642

preliminary  
report

The Envelope Industry includes establishments primarily engaged in manufacturing envelopes of any description from purchased paper and paper-board. Establishments primarily engaged in manufacturing papeteries (boxed stationery) are classified in industry 2649.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Envelope Industry amounted to \$470.3 million, an increase of 30 percent compared with 1963. Value added by manufacture at \$253.1

million in 1967 was 34 percent more than value added in 1963. Average employment in the industry showed an increase of 8 percent from 1963 to a total of 22.5 thousand employees in 1967.

Of the \$470.3 million total value of shipments and other receipts of establishments classified as envelopes, \$21.3 million were products primary to other industries; and \$25.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2642.-ENVELOPES													
1967 Census....	228	163	22.5	141.9	18.1	37.6	97.9	253.1	219.5	470.3	13.4	58.4	93	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	22.1	135.8	17.7	37.4	93.9	242.5	208.9	446.3	13.1	60.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	21.8	125.2	18.2	36.5	88.2	209.7	195.6	403.0	10.4	50.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	20.6	116.4	16.4	34.0	79.6	191.1	176.7	365.7	9.0	45.2	(NA)	(NA)
1963 Census....	230	173	20.7	114.9	16.4	34.2	78.6	189.0	174.1	363.2	8.1	43.7	94	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	19.2	102.8	15.1	31.8	71.0	160.5	167.7	327.3	8.1	39.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	18.9	97.6	14.8	31.0	67.1	152.2	160.2	313.0	*8.4	38.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	18.8	94.8	15.0	31.0	66.3	150.8	159.4	307.6	*6.0	39.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	18.3	89.8	14.7	30.4	61.3	145.1	150.9	294.9	*7.1	36.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	205	146	17.8	84.6	14.3	29.4	58.2	138.3	133.2	271.6	6.4	31.8	93	94

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

The total value of envelopes shipped by all producers in 1967 was \$441.1 million of which \$424.0 million, or 96 percent, were shipped by plants classified in industry 2642, Envelopes, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was also 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

1967 CENSUS OF MANUFACTURES  
TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2642.-ENVELOPES													
United States, total.....	228	163	22.5	141.9	18.1	37.6	97.9	253.1	219.5	470.3	13.4	20.7	189.0
New England.....	20	13	2.8	16.6	2.3	4.8	12.4	29.5	30.7	60.3	3.0	2.7	20.2
Middle Atlantic.....	65	41	5.2	33.1	4.5	9.3	24.3	59.8	56.2	115.1	3.1	4.9	45.5
New Jersey.....	7	6	0.9	5.7	0.7	1.6	4.1	10.7	7.7	18.5	0.4	1.1	10.2
East North Central....	41	32	5.7	37.8	4.4	9.3	25.5	62.0	49.3	110.9	2.6	5.8	50.0
Ohio.....	12	7	1.4	8.8	1.1	2.3	6.2	13.8	12.3	26.0	0.5	1.8	14.1
Illinois.....	17	16	3.2	21.8	2.5	5.3	14.9	35.3	27.9	62.9	1.6	2.8	25.3
Michigan.....	6	4	0.5	3.4	0.3	0.7	2.0	5.8	4.0	9.7	0.2	0.5	5.2
West North Central....	25	20	2.4	15.9	1.9	4.0	10.4	30.8	23.4	53.8	1.3	2.3	22.9
Missouri.....	12	10	1.3	8.3	1.0	2.1	5.4	17.2	12.8	29.7	0.6	1.2	12.8
South Atlantic.....	24	18	2.2	12.4	1.8	3.5	8.3	21.9	20.9	42.7	1.5	1.7	15.8
Maryland.....	5	3	0.3	2.0	0.3	0.6	1.3	3.3	3.6	6.9	0.3	0.3	2.9
Florida.....	7	4	0.3	1.3	0.2	0.5	0.9	2.0	2.5	4.6	0.1	0.2	1.4
East South Central....	8	5	0.7	3.3	0.6	1.2	2.5	6.6	5.7	12.2	0.2	0.4	3.3
Tennessee.....	3	3	0.2	1.3	0.2	0.4	0.8	2.5	2.3	4.8	(D)	(D)	(D)
West South Central....	16	12	1.0	5.8	0.8	1.6	3.6	10.2	10.2	20.1	0.5	0.8	7.4
Texas.....	12	10	0.9	5.3	0.7	1.4	3.3	9.5	9.3	18.5	(D)	(D)	(D)
West.....	29	21	2.4	17.1	1.9	3.8	11.0	32.4	23.0	55.1	1.1	2.1	23.9
California.....	20	14	1.5	10.6	1.2	2.4	7.2	20.6	15.8	36.3	(D)	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (millions)	Value (million dollars)	Quantity (millions)	Value (million dollars)
2642- --	ENVELOPES.....	89,713.6	441.1	68,038.7	330.7
26420 11	Envelopes, all types, sizes, and materials, excluding stationery envelopes (envelopes shipped).....	89,713.6	441.1	68,038.7	330.7

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2642.-ENVELOPES					
	Materials, parts, and supplies, total.....	.....	(X)	200.1	(X)	154.8
	Paper:					
262105	Own paper produced at this location or at affiliated or associated mills.....	1,000 short tons.	45.6	12.4	35.5	9.3
262106	Purchased (market) paper.....	...do.....	512.1	134.7	<sup>1</sup> 420.0	<sup>1</sup> 104.4
	Paperboard:					
263103	Purchased (market) paperboard.....	...do.....	<sup>1</sup> 19.8	<sup>1</sup> 3.2	(X)	(X)
289111	Glues and adhesives.....	Million lbs.....	37.9	8.2	29.9	5.8
307911	Unsupported plastic film and sheeting excluding packaging material	...do.....	6.8	3.5	9.9	5.7
976000	Materials, n.s.k.....	.....	(X)	9.2	(X)	(X)
970099	All other materials and component parts, containers, and supplies.	.....	(X)	28.9	(X)	29.6

(X) Not applicable.

<sup>1</sup>Includes an insignificant amount of "own paperboard" in order to avoid disclosing figures for individual companies.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2642, these small establishments accounted for approximately 0.2 percent of payrolls and 0.3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-26B-3

## INDUSTRY SERIES

### Bags, except textile bags

SIC Code 2643

**preliminary  
report**

The Bags, Except Textile Bags, Industry includes establishments primarily engaged in manufacturing bags from purchased paper, cellophane, acetate, polyethylene, pliofilm, foil, and similar sheet or film materials.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Bags, Except Textile Bags, Industry amounted to \$1,363.3 million, an increase of 28 percent compared with 1963. Value added by manufacture at \$561.0 million in 1967 was

52 percent more than value added in 1963. Average employment in the industry showed an increase of 9 percent from 1963 to a total of 46.1 thousand employees in 1967.

Of the \$1,363.3 million total value of shipments and other receipts of establishments classified in the Bags, Except Textile Bags, Industry, \$222.3 million were products primary to other industries; and \$53.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 83 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 86 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2643.--BAGS, EXCEPT TEXTILE BAGS														
1967 Census....	557	309	46.1	277.6	36.9	75.1	196.8	561.0	809.9	1,363.3	45.3	161.6	83	87
1966 ASM <sup>1</sup> .....	(NA)	(NA)	47.1	273.2	37.7	78.2	191.7	558.0	808.0	1,358.5	54.2	165.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	43.9	242.2	35.1	71.6	171.3	475.0	740.9	1,207.3	34.9	149.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	43.6	233.4	35.1	71.9	166.8	404.0	702.4	1,099.7	41.6	133.7	(NA)	(NA)
1963 Census....	586	297	42.3	219.1	34.3	69.1	156.7	369.7	689.8	1,061.7	26.7	134.1	86	88
1962 ASM <sup>1</sup> .....	(NA)	(NA)	40.0	200.8	32.8	64.0	144.9	375.1	640.0	1,005.9	24.7	118.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	39.5	192.6	32.4	63.2	137.6	351.5	644.1	992.0	21.1	109.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	41.0	189.2	33.7	63.5	133.8	331.4	622.0	952.0	23.7	107.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	40.3	183.1	32.5	65.3	131.7	335.2	640.0	971.1	22.7	108.5	(NA)	(NA)
1958 Census <sup>2</sup> ....	461	251	39.0	169.9	31.7	63.2	122.3	308.9	601.8	908.5	18.5	102.7	84	81

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of bags, except textile bags, shipped by all producers in 1967 was \$1,246.0 million of which \$1,087.3 million, or 87 percent, were shipped by plants classified in industry 2643, Bags, Except Textile Bags, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 88 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2643, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M26F, Converted Flexible Packaging Products.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2643. --BAGS, EXCEPT TEXTILE BAGS												
United States, total.....	557	309	46.1	277.6	36.9	75.1	196.8	561.0	809.9	1,363.3	45.3	42.3	369.7
New England.....	39	19	1.6	8.2	1.3	2.6	5.9	18.9	25.6	43.9	(D)	1.4	12.0
Massachusetts.....	21	11	1.0	5.3	0.8	1.7	3.9	13.0	19.2	31.9	(D)	1.0	9.6
Middle Atlantic.....	177	84	9.5	60.5	7.1	14.3	37.4	125.9	172.2	293.6	(D)	8.8	86.7
New York.....	119	54	5.6	35.4	4.1	8.1	21.1	73.6	96.8	168.4	6.9	5.5	52.9
New Jersey.....	28	15	1.7	10.6	1.2	2.6	6.5	18.8	33.6	51.4	(D)	1.1	11.0
Pennsylvania.....	30	15	2.2	14.6	1.7	3.5	9.8	33.5	41.8	73.7	2.4	2.2	22.9
East North Central...	120	61	7.4	44.7	5.7	11.8	29.5	88.2	111.4	200.1	6.5	7.2	72.9
Ohio.....	28	15	1.7	10.4	1.3	2.9	7.2	19.9	26.6	46.3	1.3	2.7	25.3
Indiana.....	11	8	1.3	6.2	1.0	2.0	4.5	11.5	12.8	24.1	0.5	1.0	8.4
Illinois.....	55	26	3.5	22.6	2.6	5.5	14.4	47.1	52.1	100.1	4.0	2.7	28.4
Michigan.....	13	7	0.6	3.5	0.5	0.8	2.0	6.8	13.6	20.4	0.2	(D)	(D)
Wisconsin.....	13	5	0.3	2.0	0.3	0.6	1.4	2.9	6.4	9.1	0.4	(D)	(D)
West North Central...	38	20	3.3	19.3	2.6	5.5	13.2	39.8	51.1	91.1	2.0	2.8	28.9
Missouri.....	17	9	1.7	9.2	1.3	2.6	5.9	14.3	23.0	37.3	0.7	1.5	11.0
Kansas.....	7	2	0.2	1.1	0.1	0.3	0.8	2.4	3.6	5.9	0.2	0.1	1.3
South Atlantic.....	54	38	9.8	57.9	8.3	16.9	45.2	123.0	180.7	302.5	12.4	9.1	75.1
Virginia.....	9	8	1.0	5.4	0.9	1.8	4.1	10.9	26.2	37.2	0.9	1.4	10.8
Georgia.....	14	8	3.4	19.8	2.8	5.6	15.1	34.1	64.2	97.9	4.6	3.2	23.3
Florida.....	12	8	3.6	21.5	3.1	6.3	17.8	52.0	59.6	110.8	3.7	2.6	18.6
East South Central...	21	18	4.8	27.2	4.0	8.3	22.0	47.5	81.1	128.8	3.4	4.4	20.6
West South Central...	44	33	6.3	37.6	5.1	10.2	27.5	71.8	119.0	189.7	4.3	4.8	35.7
Louisiana.....	11	11	2.4	14.4	2.1	4.2	11.7	25.1	54.1	79.0	2.1	2.6	16.0
Texas.....	20	12	2.5	15.3	1.7	3.6	9.0	29.8	36.9	65.9	1.2	(D)	(D)
*West.....	54	36	3.4	22.0	2.8	5.5	16.1	45.8	68.2	113.0	4.5	3.8	37.8
Washington.....	6	4	0.6	3.9	0.5	1.0	3.1	8.1	12.8	20.8	(D)	(D)	(D)
California.....	48	27	2.3	15.1	1.9	3.8	11.0	32.2	48.0	79.5	(D)	2.4	25.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2643- --	BAGS, EXCEPT TEXTILE BAGS.....	(X)	1,246.0	(X)	976.9
26431 --	Grocers' and variety bags (paper) and wardrobe, shopping, and other bags..	(X)	361.9	(X)	254.1
26431 11	Grocers' and variety bags, paper.....	1,656.2	325.4	1,220.8	229.1
26431 51	Shopping bags.....	53.2	22.5	16.7	6.5
26431 98	Other paper bags, n.e.c., (wardrobe, mothproof, etc.).....	46.1	14.0	(S)	18.6
26432 --	Specialty bags and liners.....	(X)	545.5	(X)	416.1
	Paper and paper combinations (except polyethylene):				
26432 10	Kraft or sulfite paper, single or in combination with other paper or films, except polyethylene.....	207.4	110.0	191.5	90.1
26432 20	Glassine, greaseproof, and parchment, laminated or unlaminated.....	55.1	39.1	(NA)	45.1
	Polyethylene combinations, including polyethylene and foil combinations:				
26432 30	Polyethylene combined with other films by lamination or coating.....	(NA)	26.5	(X)	30.8
26432 40	Polyethylene combined by lamination or by coating to paper, to foil or to foil combinations.....	(NA)	12.8	(X)	8.2
	Unsupported film:				
26432 50	Cellophane--quantity (in million lbs.) of cellophane shipments and transfers.....	<sup>e</sup> 27.3	24.3	(NA)	36.6
26432 60	Polyethylene--quantity (in million lbs.) of polyethylene shipments and transfers.....	<sup>e</sup> 432.9	236.8	(NA)	111.8
26432 70	Other unsupported films (pliofilm, acetate, etc.).....	(NA)	34.5	(NA)	29.9
26432 80	Foil and foil combinations and laminations, except polyethylene.....	(NA)	11.6	(X)	5.5
26432 90	Resale household bags (all materials) (garbage, lunch, sandwich, etc.)..	(NA)	38.5	(NA)	41.0
26432 00	Specialty bags and liners, n.s.k.....	(X)	11.4	(X)	17.1
26433 --	Shipping sacks and multiwall bags.....	(X)	316.4	894.6	288.6
26433 11	Single and double wall.....	264.0	91.0	149.5	50.9
26433 51	Multiwall (three or more plies).....	659.9	224.6	745.1	237.2
26433 00	Shipping sacks and multiwall bags, n.s.k.....	(X)	0.8	(X)	0.5
26430 00	Bags, except textile bags, n.s.k. (For companies with 10 or more employees. See note.).....	(X)	7.8	1.5	18.0
26430 02	Bags, except textile bags, n.s.k. (For companies with less than 10 employees. See note.).....	(X)	14.4		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2643.--BAGS, EXCEPT TEXTILE BAGS					
	Materials, parts, and supplies, total.....		(X)	756.9	(X)	635.8
	Paper:					
262105	Owned paper, produced at this location or at other affiliated or associated mills.....	1,000 short tons.	1,543.8	199.9	1,235.8	181.1
262106	Purchased (market) paper.....	..do.....	1,257.8	216.5	1,210.3	211.9
	Paperboard:					
263102	Owned paperboard, produced at this location or at other affiliated or associated mills.....	..do.....	13.4	1.4	14.7	1.6
263103	Purchased (market) paperboard.....	..do.....	37.6	6.7	11.5	1.7
289111	Glues and adhesives.....	Million lbs.....	<sup>e</sup> 109.1	12.4	95.6	11.1
282130	Thermoplastic resins including modified resins (including resin content of vinyls and dry basis for cellulosics, polyethylenes, polypropylenes, styrenes, etc. Includes granules, pellets, powder, liquid, etc., but excludes sheets, rods, tubes, and other shapes).....	..do.....	307.0	50.0	186.1	34.6
289301	Printing ink (complete formulations).....	..do.....	35.9	22.9	25.7	16.9
282103	Cellulosic plastics, sheet and rolls, and cellophane.....	..do.....	<sup>e</sup> 64.1	34.7	51.3	25.8
307916	Unsupported plastics film, sheets and sheeting, except cellulosic:.....	..do.....	<sup>e</sup> 261.2	74.4	195.4	38.3
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	98.4	(X)	112.4
971000	Materials, parts, and supplies, n.s.k.....		(X)	39.6	(X)	-

- Represents zero.    <sup>e</sup>Form 10 to 30 percent of this figure was estimated.    n.s.k. Not specified by kind.    (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2643, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES

MC67(P)-26B-4

## INDUSTRY SERIES

preliminary  
report

## Wallpaper

SIC Code 2644

The Wallpaper Industry includes establishments primarily engaged in designing, printing and embossing paper for interior walls and ceilings. The paper stock used by this industry is called "hanging paper" and is produced by papermills classified in industry 2621.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Wallpaper Industry amounted to \$44.1 million, an increase of 21 percent compared with

1963. Value added by manufacture at \$24.4 million in 1967 was 17 percent more than value added in 1963. Average employment in the industry showed an increase of 5 percent from 1963 to a total of 2.3 thousand employees in 1967.

Of the \$44.1 million total value of shipments and other receipts of establishments classified as wallpaper, \$1.2 million were products primary to other industries; and \$2.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was also 97 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2644.—WALLPAPER													
1967 Census....	75	29	2.3	14.2	1.8	3.5	9.7	24.4	20.3	44.1	0.5	11.0	97	99
1966 ASM <sup>1</sup> .....	(NA)	(NA)	2.2	15.0	1.6	3.3	10.2	24.6	20.0	45.9	*1.3	11.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	2.1	12.8	1.5	3.0	8.4	25.5	16.3	42.6	*1.2	9.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	2.2	12.3	1.7	3.4	8.3	22.4	17.7	40.7	0.3	8.0	(NA)	(NA)
1963 Census....	79	31	2.2	11.9	1.6	3.3	7.9	20.9	15.6	36.5	0.4	8.5	97	99
1962 ASM <sup>1</sup> .....	(NA)	(NA)	2.0	10.0	1.6	3.2	7.0	17.8	13.7	31.8	(Z)	6.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	2.1	10.1	1.6	3.3	7.2	18.6	14.0	33.2	(Z)	6.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(NA)	(NA)
1958 Census <sup>2</sup> ....	73	29	2.8	13.4	2.1	4.4	9.1	21.5	19.5	40.8	0.4	9.2	93	99

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. (Z) Less than \$500 thousand.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

William H. Chartener, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS A. Ross Eckler, Director

The total value of wallpaper shipped by all producers in 1967 was \$41.0 million of which approximately 99 percent, were shipped by plants classified in industry 2644, Wallpaper, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was also 99 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

1967 CENSUS OF MANUFACTURES  
TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2644.— WALLPAPER												
United States, total.....	75	29	2.3	14.2	1.8	3.5	9.7	24.4	20.3	44.1	0.5	2.2	20.9
New England.....	5	3	0.2	1.1	0.1	0.2	0.7	1.8	0.9	2.8	(D)	0.2	1.5
Middle Atlantic.....	45	15	1.2	7.6	1.0	1.9	5.1	14.4	12.4	25.8	0.3	1.1	10.8
New York.....	31	9	0.8	5.2	0.7	1.3	3.5	10.7	9.2	19.1	0.2	(D)	(D)
New Jersey.....	9	3	0.2	1.0	0.1	0.3	0.7	1.8	1.4	3.0	0.1	(D)	(D)
Pennsylvania.....	6	3	0.2	1.4	0.2	0.3	0.9	1.8	1.8	3.7	(Z)	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$500 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity	Value (million dollars)	Quantity	Value (million dollars)
2644- --	WALLPAPER.....	(X)	41.0	(X)	33.6
26440 --	Wallpaper:				
	Machine printed wallpaper:				
26440 11	Quantity (in 1,000 short tons) of paper and board consumed .....	34.6	(X)	36.6	(X)
26440 15	Quantity (in million single rolls or equivalent) of shipments and transfers.....	57.1	27.8	88.5	22.0
	Screen printed wallpaper, including repeat goods, scenics, panels, etc.:				
26440 55	Quantity (in million single rolls equivalent 36 sq. ft.) of shipments and transfers.....	2.3	8.7	2.8	9.4
26440 00	Wallpaper, n.s.k.....	(X)	4.5	(X)	2.2

n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2644. - WALLPAPER					
	Materials, parts, and supplies, total.....		(X)	17.5	(X)	13.7
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1,000 short tons.	19.2	5.4	7.0	2.1
262106	Purchased (market) paper.....	do.....			30.5	6.1
263103	Paperboard; purchased (market) paperboard.....		(D)	(D)	(D)	(D)
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	16.8	(X)	15.5
972000	Materials, parts, and supplies n.s.k.....		(X)	5.3	(X)	(X)

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Contains an insignificant amount of "purchased (market) paperboard" combined here to avoid disclosing figures of individual companies.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2644, these small establishments accounted for approximately 3 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees**--All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls**--This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours**--This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials**--The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed**--In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments**--The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**WASHINGTON, D.C. 20233**

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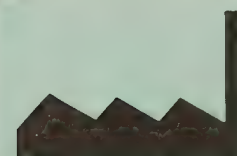
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Die-cut paper and board

SIC Code 2645

**preliminary  
report**

The Die-Cut Paper and Paperboard and Card-board Industry includes establishment primarily engaged in die-cutting purchased paper and paperboard; and in manufacturing cardboard by laminating lining, or surface coating paperboard. Establishments primarily engaged in laminating building paper or building board from purchased paper or board are classified in industry 2649.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Die-Cut Paper and Board Industry amounted to \$498.8 million, an increase of 32

percent compared with 1963. Value added by manufacture at \$231.0 million in 1967 was 26 percent more than value added in 1963. Average employment in the industry showed an increase of 21 percent from 1963 to a total of 18.2 thousand employees in 1967.

Of the \$498.8 million total value of shipments and other receipts of establishments classified as die-cut paper and board, \$77.2 million were products primary to other industries; and \$30.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2645.—DIE-CUT PAPER AND BOARD													
1967 Census....	438	187	18.2	114.5	14.4	28.6	77.5	231.0	266.5	498.8	8.8	54.3	84	84
1966 ASM <sup>1</sup> .....	(NA)	(NA)	18.3	113.4	13.9	28.3	74.1	232.7	290.2	512.5	8.4	55.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	16.5	96.0	12.7	25.6	66.0	206.5	257.5	458.4	8.6	44.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	16.2	90.8	12.8	24.8	61.5	181.3	227.2	407.3	*8.9	40.6	(NA)	(NA)
1963 Census....	425	156	15.1	83.4	11.7	23.5	57.1	183.2	200.3	378.3	7.7	37.4	88	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	13.6	71.1	10.8	21.2	49.1	141.4	166.2	307.2	*7.7	39.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	14.6	73.2	11.5	22.2	51.6	137.4	177.0	313.5	5.8	38.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	14.3	70.5	11.4	21.8	50.8	135.5	172.1	306.6	(S)	39.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	14.0	67.2	11.2	22.5	48.4	123.3	156.4	278.2	(S)	32.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	372	118	12.2	58.5	9.4	18.5	39.1	111.2	139.1	251.4	10.6	29.9	92	80

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE**    **Maurice H. Stans, Secretary**  
**Rocco C. Siciliano, Under Secretary**  
**BUREAU OF THE CENSUS**

The total value of die-cut paper and board shipped by all producers in 1967 was \$462.4 million of which \$390.7 million, or 84 percent, were shipped by plants classified in industry 2645, Die-Cut Paper and Board, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	All em- ployees  (1,000)	Value added by manufac- ture  (million dollars)
	Total  (number)	With 20 employ- ees or more (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)						
	INDUSTRY 2645.—DIE-CUT-PAPER AND BOARD												
United States, total.....	438	187	18.2	114.5	14.4	28.6	77.5	231.0	266.5	498.8	8.8	15.1	183.2
Northeast.....	191	77	7.0	43.0	5.6	11.0	28.8	90.0	88.3	177.9	(D)	6.1	68.8
East North Central....	111	57	6.2	39.3	4.9	9.8	26.7	74.5	97.0	171.3	3.6	5.4	71.4
Ohio.....	27	10	0.8	4.0	0.7	1.4	2.8	7.7	12.0	19.7	0.9	1.4	23.0
Illinois.....	47	26	2.2	13.9	1.8	3.5	8.4	25.2	26.9	52.0	1.3	(D)	(D)
Michigan.....	19	13	1.6	10.8	1.3	2.5	7.4	19.3	38.1	57.4	0.9	1.0	10.9
West North Central....	32	10	1.3	7.4	0.9	1.8	4.1	13.4	13.0	26.3	(D)	0.9	6.3
Missouri.....	13	4	0.2	1.0	0.1	0.3	0.8	2.5	2.8	5.2	0.1	(D)	(D)
South Atlantic.....	36	14	1.5	9.9	1.2	2.6	7.2	25.4	29.4	54.8	0.8	(D)	(D)
North Carolina.....	9	4	0.4	1.9	0.3	0.6	1.4	5.6	8.0	13.6	0.4	0.2	2.4
Georgia.....	10	5	0.4	2.0	0.3	0.6	1.4	7.7	5.9	13.6	0.1	(D)	(D)
East South Central....	5	1	0.1	0.5	0.1	0.2	0.3	1.0	1.6	2.6	(Z)	(D)	(D)
West South Central....	13	6	0.4	2.6	0.3	0.7	2.0	6.6	11.0	17.5	0.3	(D)	(D)
Texas.....	8	4	0.4	2.4	0.3	0.6	1.7	5.7	9.0	14.7	0.2	0.3	5.0
West.....	50	22	1.7	11.8	1.4	2.7	8.4	20.1	26.1	48.5	0.8	(D)	(D)
California.....	39	18	1.4	9.9	1.2	2.3	7.1	15.3	21.2	38.7	(D)	1.1	13.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)
2645- --	DIE-CUT PAPER AND BOARD, TOTAL.....	(X)	462.4	(X)	380.1
26451 --	Office supplies (filing accessories) and miscellaneous products.....	(X)	342.8	(X)	297.8
	Filing accessories:				
26451 11	Index cards.....	17.7	10.2	8.5	5.9
26451 13	File folders.....	60.0	38.2	45.9	29.6
26451 15	Guide cards.....	14.7	15.8	10.9	9.9
26451 21	Other die-cut paper and cardboard office supplies, including binders and covers, except looseleaf.....	42.3	28.2	(NA)	22.1
26451 53	Standard tabulating cards (single cut cards 3-1/4 inches wide and 7-3/8 inches long, unprinted or printed on one side in any one color ink on any color stock).....	348.5	109.1	308.0	106.3
26451 55	Single-cut tabulating cards, nonstandard single-cut tabulating cards, other than reporting as standard, excluding continuous.....	76.6	38.9	54.9	30.2
26451 61	Cards, die-cut and designed (not printed).....	(S)	10.0	12.0	7.0
26451 71	Automotive board products (panel, trim, etc.).....	109.2	41.6	75.3	36.2
26451 81	Bottle caps, closures and lids.....	23.0	19.4	40.1	27.7
26451 99	Other, including fillers and flats for egg cases, except molded pulp (excluding labels).....	(X)	17.7	(X)	23.2
26451 00	Office supplies (filing accessories) and miscellaneous products, n.s.k..	(X)	13.7	(X)	(X)
26452 11	Pasted, lined, laminated, or surface coated paperboard.....	352.7	88.6	327.3	73.1
26450 00	Die-cut paper and board, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	24.9	}	(X)
26450 02	Die-cut paper and board, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	6.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2645.--DIE-CUT PAPER AND BOARD					
	Materials, parts, and supplies, total.....		(X)	244.2	(X)	187.0
	Paper:					
262105	Own paper produced at this location or at affiliated or associated mills.....	1,000 short tons.	41.0	9.9	37.7	7.0
262106	Purchased (market) paper.....	..do.....	348.0	77.6	288.1	66.9
	Paperboard:					
263102	Owned paperboard, produced at this location or at affiliated or associated mills.....	..do.....	125.1	15.1	80.7	7.6
263103	Purchased (market) paperboard.....	..do.....	376.8	70.6	311.0	61.1
289111	Glues and adhesives.....	Million lbs.....	13.3	2.6	(NA)	(NA)
307911	Unsupported plastic film and sheeting, excluding packaging material.....	..do.....	5.5	2.4	(NA)	(NA)
261101	Woodpulp (used in making pressed and molded pulp products).....	1,000 short tons.	5.7	1.2	3.9	0.7
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	37.7	(X)	43.7
972000	Material not specified.....		(X)	27.1	(X)	(X)

(NA) Not available.

(X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

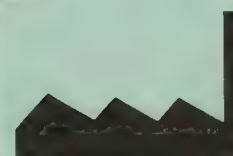
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-26B-6

## INDUSTRY SERIES

### Pressed and molded pulp goods

SIC Code 2646

**preliminary  
report**

The Pressed and Molded Pulp Goods Industry includes establishments primarily engaged in manufacturing all kinds of pressed and molded pulp goods, including papier mache articles other than statuary and art goods (industry 3299). Establishments primarily engaged in manufacturing plates and utensils from paper are classified in industry 2654.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Pressed and Molded Pulp Goods Industry amounted to \$145.9 million, an increase

of 33 percent compared with 1963. Value added by manufacture at \$97.8 million in 1967 was 40 percent more than value added in 1963. Average employment in the industry showed an increase of 18 percent from 1963 to a total of 6.7 thousand employees in 1967.

Of the \$145.9 million total value of shipments and other receipts of establishments classified as pressed and molded pulp goods, \$0.9 million were products primary to other industries; and \$1.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 99 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was also 99 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	End-of-year inventories  (million dollars)	Special- ization ratio  (per- cent)	Coverage ratio  (per- cent)
	Total	With 20 employ- ees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2646.--PRESSED AND MOLDED PULP GOODS													
1967 Census....	58	45	6.7	44.8	5.4	11.4	33.0	97.8	48.7	145.9	17.6	16.3	99	99
1966 ASM¹.....	(NA)	(NA)	7.0	43.3	5.4	11.4	31.5	97.9	52.9	151.5	10.0	15.4	(NA)	(NA)
1965 ASM¹.....	(NA)	(NA)	6.7	41.3	5.4	11.2	29.9	93.0	51.9	145.4	17.3	15.1	(NA)	(NA)
1964 ASM¹.....	(NA)	(NA)	6.8	39.7	5.6	11.6	29.7	81.8	49.3	130.7	*11.1	13.9	(NA)	(NA)
1963 Census....	59	42	5.7	32.9	4.5	9.7	24.2	70.0	40.8	110.1	11.6	14.1	99	96
1962 ASM¹.....	(NA)	(NA)	4.3	30.2	3.2	8.0	20.7	62.1	38.6	101.0	19.8	12.2	(NA)	(NA)
1961 ASM¹.....	(NA)	(NA)	3.9	25.5	2.9	7.4	18.0	57.7	32.9	90.3	7.5	11.3	(NA)	(NA)
1960 ASM¹.....	(NA)	(NA)	4.0	24.0	3.1	7.8	17.8	55.3	32.5	88.0	10.9	10.4	(NA)	(NA)
1959 ASM¹.....	(NA)	(NA)	4.3	23.7	3.4	8.3	17.7	57.1	33.2	90.1	5.0	10.4	(NA)	(NA)
1958 Census²...	55	28	4.5	21.3	3.7	7.8	15.9	49.8	30.2	78.8	2.2	9.0	99	96

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS**

The total value of pressed and molded pulp goods shipped by all producers in 1967 was \$144.5 million of which approximately 99 percent, were shipped by plants classified in industry 2646, Pressed and Molded Pulp Goods, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2646.--PRESSED AND MOLDED PULP GOODS													
United States, total.....	58	45	6.7	44.8	5.4	11.4	33.0	97.8	48.7	145.9	17.6	5.7	70.0
Northeast.....	19	16	3.0	20.7	2.3	4.9	14.3	38.2	24.0	62.0	(D)	2.9	30.0
East North Central.....	16	14	1.9	12.7	1.6	3.3	9.6	23.9	11.7	35.3	(D)	(D)	(D)
Wisconsin.....	4	4	0.3	1.7	0.2	0.4	1.2	3.5	1.8	5.2	0.3	0.2	2.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity of wood pulp and waste paper consumed (1,000 short tons)	Value (million dollars)	Quantity of wood pulp and waste paper consumed (1,000 short tons)	Value (million dollars)
2646--	PRESSED AND MOLDED PULP GOODS.....	(X)	144.5	(X)	112.0
26461--	Bituminous fiber pipe, sewer and drainage, conduit and fittings: molded pulp or papier maché.....	(X)	22.6	(X)	23.0
26461 08	Quantity (in millions of running feet) of shipments and transfers.....	132.2	22.6	114.9	23.0
26462--	Other pressed and molded pulp goods.....	(X)	117.5	(X)	89.1
26462 31	Prepackaging trays and boards, for meats, produce, and food trays.....	(D)	(D)	100.7	26.7
26462 51	Molded pulp plates and dishes.....	(D)	(D)	36.1	14.6
26462 98	Other molded pulp and papier maché articles, including egg cartons and excluding statuary and art goods.....	(X)	(D)	(X)	47.7
26460 00	Pressed and molded pulp goods, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	4.3	}	(X)
26460 02	Pressed and molded pulp goods, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	0.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher level totals or from related figures. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2646.--PRESSED AND MOLDED PULP GOODS					
	Materials, parts, and supplies, total.....		(X)	39.6	(X)	34.0
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1,000 short tons..	-	-	-	-
262106	Purchased (market) paper.....	...do.....	(NA)	(NA)	0.7	(S)
	Paperboard:					
263102	Own paperboard, produced at this location or at other affiliated or associated mills.....	...do.....	(NA)	(NA)	4.6	0.5
263103	Purchased (market) paperboard.....	...do.....	(NA)	(NA)	7.0	1.3
261101	Woodpulp (used in making pressed and molded pulp products).....	...do.....	194.5	12.6	137.5	8.7
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	22.3	(X)	23.2
972000	Materials not specified.....		(X)	4.7	(X)	(X)

- Represents zero. (NA) Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error on the basis of a consistency review. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2646, these small establishments accounted for approximately 0.0 percent of payrolls and 0.1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

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**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

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"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

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These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE  
Bureau of the Census**

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**WASHINGTON, D.C. 20233**

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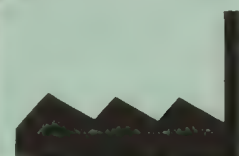
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**U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES



MC67(P)-26B-7

## INDUSTRY SERIES

### preliminary report

## Sanitary paper products

SIC Code 2647

The Sanitary Paper Products Industry includes establishments primarily engaged in manufacturing from purchased paper, sanitary paper products, such as facial tissues and handkerchiefs, table napkins, toilet paper, towels, sanitary napkins, and tampons.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Sanitary Paper Products Industry amounted to \$1,293.9 million, an increase of 32 percent compared with 1963. Value added by manufacture at \$539.6 million in 1967 was 46

percent more than value added in 1963. Average employment in the industry showed an increase of 15 percent from 1963 to a total of 22.0 thousand employees in 1967.

Of the \$1,293.9 million total value of shipments and other receipts of establishments classified as sanitary paper products, \$72.9 million were products primary to other industries; and \$31.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2647.--SANITARY PAPER PRODUCTS													
1967 Census....	127	88	22.0	154.1	18.2	37.5	118.5	539.6	759.3	1,293.9	89.6	79.2	94	97
1966 ASM <sup>1</sup> .....	(NA)	(NA)	20.2	136.9	16.9	35.0	104.8	476.5	715.6	1,185.8	48.6	73.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	19.5	123.8	16.0	33.2	94.4	418.4	683.8	1,104.9	38.7	64.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	19.2	117.3	15.8	32.7	89.6	390.7	644.0	1,029.3	26.4	66.2	(NA)	(NA)
1963 Census....	119	77	19.1	112.5	15.3	32.3	85.9	369.7	619.4	983.0	16.6	59.4	93	97
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of sanitary paper products shipped by all producers in 1967 was \$1,225.7 million of which \$1,189.6 million, or 97 percent, were shipped by plants classified in industry 2647, Sanitary Paper Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was also 97 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

(See Appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2647.--SANITARY PAPER PRODUCTS												
United States, total.....	127	88	22.0	154.1	18.2	37.5	118.5	539.6	759.3	1,293.9	89.6	19.1	369.7
New England.....	24	18	3.7	22.0	3.1	6.4	17.6	76.0	94.4	169.3	2.9	(D)	(D)
Massachusetts.....	11	8	1.2	6.5	0.9	1.8	4.5	19.0	20.5	39.2	1.4	(D)	(D)
Middle Atlantic.....	37	24	5.7	42.2	4.3	8.9	28.0	119.7	192.5	312.7	40.6	(D)	(D)
North Central.....	32	24	6.4	46.0	5.4	11.2	36.2	164.4	232.3	393.7	9.6	(D)	(D)
Wisconsin.....	17	16	5.2	38.9	4.4	9.3	31.2	134.9	202.8	335.0	(D)	(D)	(D)
South.....	■	5	2.2	16.4	2.1	4.3	14.5	100.9	91.3	191.0	(D)	(D)	(D)
West.....	25	17	3.9	27.5	2.4	6.6	22.3	78.6	148.8	227.3	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2647- --	SANITARY PAPER PRODUCTS.....	(X)	1,225.7	(X)	925.4
26471 --	Sanitary napkins and tampons.....	(X)	177.7	(X)	142.0
26471 11	Sanitary napkins and tampons-1,000 gross dozen.....	4,325.0	177.7	3,543.0	142.0
26471 51					
26471 15					
26471 55	Short tons of woodpulp and paper consumed in the manufacture of sanitary napkins and tampons.....	62.8	(X)	65.1	(X)
26472 --	Sanitary tissue health products.....	(X)	1,041.3	(X)	783.4
26472 11	Facial tissues and handkerchiefs, including sputum wipes.....	323.4	158.2	250.2	126.2
	Table napkins, including plain, creped, and facial tissue: Industrial (bulk and dispenser types):				
	Regular type--single ply:				
26472 25	Bulk.....	55.6	22.4	55.0	21.6
26472 27	Dispenser.....	69.9	24.8	36.5	12.5
26472 33	Facial tissue type--2 or more ply.....	40.6	19.8	36.0	20.8
	Retail packages (resale):				
26472 35	Regular type--single ply.....	110.8	49.8	90.8	41.1
26472 37	Facial tissue type--2 or more ply.....	61.2	38.8	50.5	22.5
	Toilet paper:				
	Rolls and ovals:				
	Industrial:				
26472 41	Facial tissue type--2 or more ply.....	55.3	20.8	15.9	5.9
26472 43	Regular type--single ply.....	105.0	30.7	98.8	27.4
	Retail packages (resale):				
26472 45	Facial tissue type--2 or more ply.....	394.5	161.9	335.5	125.9
26472 47	Regular type--single ply.....	489.9	174.3	465.5	150.3
26472 55	Interfolded and flat package.....	22.1	6.9	16.8	5.2
	Towels (rolled, folded, or interfolded):				
26472 71	Industrial.....	341.7	92.3	302.3	75.7
26472 75	Retail packages (resale).....	487.9	195.8	327.4	113.4
26472 81	Wipers (windshield, industrial, and lithographic plate).....	48.1	22.2	29.6	13.4
26472 98	Other sanitary health products, including toilet seat covers, bibs, absorbent pads, headrests, tray covers, etc.....	(NA)	22.6	23.9	18.8
26472 00	Sanitary tissue health products, n.s.k.....	(X)	-	(X)	3.0
26470 00	Sanitary paper products, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	5.6	(X)	(X)
26470 02	Sanitary paper products, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	1.1	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

-Represents zero. <sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind.  
(X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2647.--SANITARY PAPER PRODUCTS					
	Materials, parts, and supplies, total.....	.....	(X)	769.7	(X)	600.0
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1,000 s. tons....	2,423.2	476.8	2,168.1	424.0
262106	Purchased (market) paper.....	...do.....	219.6	56.9	120.6	29.6
263103	Purchased (market) paperboard.....	...do.....	26.8	5.8	49.4	9.9
282103	Cellulosic plastics, sheet and rolls, and cellophane.....	...do.....	5.7	3.7	(NA)	(NA)
307916	Unsupported plastics film, sheets and sheeting, except cellulosic	...do.....	6.5	3.2	5.1	3.1
972000	Materials, n.s.k.....	.....	(X)	74.2	(X)	(X)
970099	All other materials, and components, parts, containers, and supplies consumed.....	.....	(X)	149.1	(X)	133.4

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2647, these small establishments accounted for approximately 0.1 percent of payrolls and 0.1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Converted paper products, n.e.c.

SIC Code 2649

**preliminary  
report**

The Converted Paper and Paperboard Products, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing from purchased paper or paperboard miscellaneous converted paper or paperboard products, not elsewhere classified. Establishments primarily engaged in manufacturing sanitary products from purchased paper are classified in industry 2647.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1961 edition on the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Converted Paper Products, N.E.C., Industry amounted to \$755.9 million, an increase of 28 percent compared with 1963. Value added by manufacture at \$386.9 million in 1967 was 28 percent more than value added in 1963. Average employment in the industry showed an increase of 9 percent from 1963 to a total of 32.1 thousand employees in 1967.

Of the \$755.9 million total value of shipments and other receipts of establishments classified as converted paper products, n.e.c., \$140.0 million were products primary to other industries; and \$71.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 80 percent of the total manufactured product shipments, primary and

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2649.--CONVERTED PAPER PRODUCTS, N.E.C.													
1967 Census....	616	263	32.1	180.1	25.1	48.6	119.1	386.9	379.1	755.9	22.4	132.7	80	78
1966 ASM <sup>1</sup> .....	(NA)	(NA)	34.4	181.4	27.1	53.0	120.0	443.8	414.1	840.4	26.5	130.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	32.3	165.3	25.1	48.9	107.6	369.1	369.6	736.1	30.5	104.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	30.1	150.3	22.4	44.2	96.5	326.5	305.8	629.2	18.7	97.8	(NA)	(NA)
1963 Census....	610	239	29.5	141.9	22.2	43.6	92.1	302.5	290.4	591.7	11.9	92.7	84	78
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

secondary. This percent, called the specialization ratio for the industry, was 84 percent in 1963.

The total value of converted paper products, n.e.c., shipped by all producers in 1967 was \$697.9 million of which \$544.1 million, or 78 percent, were shipped by plants classified in industry 2649, Converted Paper Products, N.E.C., while the remainder was shipped by plants classified in other industries. This percent,

called the coverage ratio, was also 78 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2649.--CONVERTED PAPER PRODUCTS, N.E.C.												
United States, total.....	616	263	32.1	180.1	25.1	48.6	119.1	386.9	379.1	755.9	22.4	29.5	302.5
New England.....	69	31	6.1	38.7	4.5	8.7	23.7	81.3	61.8	139.4	7.0	5.6	50.6
Massachusetts.....	46	22	5.2	34.0	3.8	7.3	20.7	71.9	52.9	121.3	(D)	4.7	42.8
Middle Atlantic.....	232	100	10.1	53.9	8.0	15.6	35.8	106.0	111.6	215.8	5.0	8.2	83.5
New York.....	137	49	3.9	21.1	3.1	6.2	14.0	40.1	39.3	79.6	1.2	3.4	32.3
New Jersey.....	42	17	1.8	10.4	1.3	2.5	6.3	19.0	28.3	46.4	0.8	1.2	11.6
Pennsylvania.....	53	34	4.5	22.5	3.6	7.0	15.6	46.8	44.0	89.8	3.0	3.7	39.7
North Central.....	147	66	8.2	47.3	6.5	12.7	33.1	100.0	104.2	202.5	4.2	9.6	100.2
Ohio.....	27	12	1.6	10.5	1.2	2.4	7.0	27.9	22.1	49.7	1.2	1.6	19.0
Indiana.....	19	7	0.9	4.9	0.7	1.4	3.2	7.8	11.4	19.1	0.1	1.1	9.6
Illinois.....	34	22	2.1	12.8	1.7	3.3	8.8	25.8	27.7	53.1	0.7	2.1	20.6
South Atlantic.....	37	19	2.0	10.6	1.5	3.0	6.8	25.6	23.7	48.5	1.0	1.7	18.5
North Carolina.....	5	3	0.1	0.6	0.1	0.2	0.4	1.4	2.1	3.5	(Z)	0.2	2.1
Florida.....	12	5	0.4	2.0	0.3	0.7	1.5	6.8	4.7	11.4	0.1	0.2	4.2
East South Central....	13	9	2.2	10.5	1.8	3.4	6.9	24.8	29.7	53.3	2.3	1.1	11.4
Tennessee.....	7	5	1.7	8.0	1.4	2.6	5.2	20.5	24.1	43.5	1.9	(D)	(D)
West South Central....	26	8	1.1	5.7	0.9	1.7	3.4	13.5	12.0	26.1	0.6	1.6	18.5
Mountain.....	10	5	0.1	0.7	0.1	0.3	0.5	1.5	1.5	2.9	0.1	0.1	0.8
Pacific.....	82	28	2.1	12.8	1.7	3.2	8.8	34.3	34.7	67.4	2.2	1.6	19.0
California.....	71	25	1.8	10.7	1.4	2.7	7.3	28.6	29.5	56.8	2.1	1.3	15.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2649- --	CONVERTED PAPER PRODUCTS, N.E.C.....	(X)	697.9	(X)	589.6
26491 --	Stationery, tablets, and related products.....	(X)	254.8	(NA)	202.1
	Stationery:				
26491 11	Boxed stationery and portfolios.....	25.7	40.0	15.9	27.0
26491 13	Wedding and social announcements (paper, cards, and envelopes).....	e3.9	6.8	(S)	4.7
26491 15	Package paper and envelopes.....	e52.8	30.1	25.5	19.5
26491 19	Other.....	(NA)	4.7	(S)	10.7
	Tablets and related table-type products:				
26491 51	Correspondence type tablets.....	e20.8	13.1	20.5	10.0
26491 52	Legal pads (lithographed, printed, ruled, bound or wirebound).....	e11.6	5.3	60.8	26.5
26491 54	Tablets and pads--book and writing paper grades (except legal pads and memo books).....	64.2	31.2		
26491 56	Memobooks, other than case-made.....	e9.0	4.2		
26491 55	Newsprint tablets and pads.....	16.0	6.6	15.9	7.0
26491 57	Notebooks, including composition books, stenobooks, mechanical bound by thread, wire, or plastic.....	e60.0	33.9	(NA)	28.0
26491 61	Looseleaf fillers (school and commercial types).....	e114.8	58.5	115.6	53.2
26491 65	Wrapped ream papers in filler size.....	e17.4	7.3		
26491 69	Other.....	e9.0	4.2	11.9	7.7
26491 00	Stationery, tablets, and related products, n.s.k.....	(X)	8.9	(X)	7.6
26492 --	Wrapping products (gift wrap, etc.).....	(X)	111.0	(X)	88.2
26492 65	Creped wadding for packaging (cellulose) and crepe paper, excluding fine creped paper.....	e33.8	16.3	24.7	13.3
	Gift wrap paper (including coated paper but excluding laminations to foil):				
	Rolls:				
26492 82	Total shipments.....	e78.4	59.5	46.8	39.0 <sup>1</sup>
26492 83	Less than 18 lbs. basic weight (tissue grade of paper).....	1.9	(X)	0.9	(X)
	Folds:				
26492 91	Total shipments.....	21.9	19.1	(NA)	16.4
26492 92	Less than 18 lbs. basic weight (tissue grade of paper).....	1.3	(X)	(NA)	(X)
	By end use:				
26492 93	Christmas gift wrapping.....	(X)	<sup>1</sup> 28.0	(X)	<sup>1</sup> 30.9
26492 94	Everyday gift wrapping (except christmas gift wrapping).....	(X)	<sup>1</sup> 17.4	(X)	<sup>1</sup> 12.8
26492 95	Other gift wrapping: Counter rolls and flat sheets, store own use (except gift wrap foil and paper gift wrap prepared for sale in package form).....	6.1	3.6	6.4	2.5
26492 98	Other wrapping products, including paper gift wrap materials shipped to other manufacturers for further processing into complete put-up package (except coated, laminated, oiled, waxed, printed, saturated, and impregnated paper and foil materials).....	21.2	10.1	24.5	17.1
26492 00	Wrapping products (gift wrap, etc.), n.s.k.....	(X)	2.4	(X)	(X)
26495 --	Other converted paper and board products.....	(X)	279.1	(X)	270.2
	Business machine supplies:				
26495 11	Rolls for adding and other business machines.....	e94.4	37.7	(S)	25.3
26495 17	Other, including tapes, teletypes, etc.....	56.7	32.9	39.0	18.7
26495 31	Other miscellaneous office supplies, including safety paper.....	(D)	(D)	24.1	12.5
	Novelties, games, displays, and similar products:				
26495 41	Fine creped paper (excluding creped wrapping).....	(NA)	17.3	(NA)	8.9
26495 47	Other.....	(NA)	21.3	(NA)	12.6
	Industrial paper and board products:				
26495 E3	Laminated wallboard (in Million sq. ft.).....	101.3	18.8	(NA)	(S)
26495 66	Tiled wallboard (in Million sq. ft.).....	(NA)	11.1		
26495 69	Other.....	(NA)	31.1	(S)	24.5
	Miscellaneous paper products:				
26495 71	Doilies, place mats, and tray doilies (or tray covers).....	(NA)	17.7	21.4	13.6
26495 81	Patterns.....	(NA)	( <sup>2</sup> )	(NA)	38.6
26495 82	Tags, unprinted.....	(NA)	13.0	(NA)	9.0
26495 87	Folders and mounts, all types, except file folders.....	e16.9	10.0	(NA)	5.4
26495 98	Other miscellaneous paper and board products, including labels, unprinted, except gummed, cigarette paper, books, paper draperies, shelf paper, printed and unprinted, etc.....	(NA)	50.1	(NA)	50.2
26495 00	Other converted paper and board products, n.s.k.....	(X)	(D)	(X)	5.4

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
	CONVERTED PAPER PRODUCTS, N.E.C.—CONTINUED				
26490 00	Converted paper and paperboard products, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	40.3	(X)	29.1
26490 02	Converted paper and paperboard products, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	12.7	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. <sup>e</sup>From 10 to 30 percent of this figure was estimated.

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

(X) Not applicable.

<sup>1</sup>The value shown for these items is not included in the product class or industry totals; They are memo items indicating distribution of the value of shipments by end use for product codes 2649282 and 2649291. However, the value for these items does not equal the previously noted product codes since not all respondents reported their sales by end use.

<sup>2</sup>Patterns are now included in industry 2741, Miscellaneous Publishing.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2649.—CONVERTED PAPER PRODUCTS, N.E.C.					
	Materials and supplies, total.....	.....	(X)	291.0	(X)	253.3
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1000 short tons.	95.9	17.4	34.1	9.9
262106	Purchased (market) paper.....	...do.....	561.5	139.4	486.8	117.1
	Paperboard:					
263102	Own paperboard, produced at this location or at other affiliated or associated mills.....	...do.....	73.7	12.3	60.8	7.6
263103	Purchased (market) paperboard.....	...do.....	125.0	20.1	78.1	13.2
289111	Glues and adhesives.....	Million lbs.....	26.1	4.8	13.1	2.4
289301	Printing ink (complete formulations).....	...do.....	7.8	5.3	6.7	4.5
282103	Cellulosic plastics, sheet, and rolls, and cellophane.....	...do.....	6.4	2.6	5.2	2.0
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	70.0	(X)	96.7
973000	All other materials and components, parts, containers, and supplies consumed, n.s.k.....	.....	(X)	19.1	(X)	(X)

n.s.k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2649, these small establishments accounted for approximately 2 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

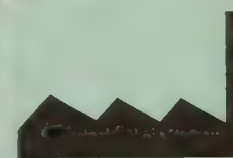
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OFFICIAL BUSINESS

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-26C-1

## INDUSTRY SERIES

**preliminary  
report**

### Folding paperboard boxes

SIC Code 2651

The Folding Paperboard Boxes Industry includes establishments primarily engaged in manufacturing folding paperboard boxes from purchased paperboard.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Folding Paperboard Boxes Industry amounted to \$1,211.2 million and value added by manufacture amounted to \$561.5 million. Average

employment in the industry amounted to a total of 49.2 thousand employees.

Of the \$1,211.2 million total value of shipments and other receipts of establishments classified as folding paperboard boxes, \$173.8 million were products primary to other industries; and \$20.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 86 percent of the total manufactured product shipments, primary and secondary.

The total value of folding paperboard boxes shipped by all producers in 1967 was \$1,123.3 million of which \$1,028.0 million, or 92 percent,

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2651.--FOLDING PAPERBOARD BOXES														
1967 Census....	572	393	49.2	322.0	39.4	81.8	227.8	561.5	654.2	1,211.2	41.8	172.5	86	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	54.3	336.7	43.8	91.3	239.7	585.3	711.1	1,289.5	38.0	182.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	51.6	310.8	41.6	87.0	224.1	535.3	657.5	1,189.2	31.8	169.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	49.8	291.1	40.3	84.0	210.0	492.1	605.2	1,089.7	44.8	157.0	(NA)	(NA)
1963 Census <sup>3</sup> ....	636	418	51.3	288.8	41.5	85.5	206.7	476.9	605.7	1,081.1	36.0	152.8	85	88
1962 ASM <sup>1</sup> .....	(NA)	(NA)	45.4	245.9	36.8	75.2	177.1	424.3	531.5	944.5	33.0	132.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	45.7	237.5	37.0	75.8	171.3	411.8	519.7	924.5	21.6	124.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	46.4	234.9	37.5	77.1	169.9	396.4	523.5	916.1	23.6	118.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	46.3	229.3	37.4	79.1	165.4	395.9	520.8	908.1	25.4	114.2	(NA)	(NA)
1958 Census <sup>2</sup> ....	514	341	46.4	222.0	37.4	77.5	159.4	391.0	501.2	887.2	34.1	107.6	85	90

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>The 1963 data are not directly comparable with other years due to an undetermined number of establishments reporting sanitary containers as folding boxes. This caused such establishments to be classified incorrectly to the Folding Box Industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

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**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

were shipped by plants classified in industry 2651, Folding Paperboard Boxes, while the remainder was shipped by plants classified in other industries.

2, and 4 may be compared with the product statistics in table 3.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2651.--FOLDING PAPERBOARD BOXES													
United States, total.....	572	393	49.2	322.0	39.4	81.8	227.8	561.5	654.2	1,211.2	41.8	51.3	476.9
New England.....	56	40	4.3	27.5	3.4	7.3	18.8	48.8	45.0	93.7	3.3	6.2	54.7
Massachusetts.....	28	19	2.0	12.1	1.7	3.5	8.4	20.3	22.4	42.8	2.1	3.3	29.2
Connecticut.....	21	15	2.0	14.3	1.5	3.4	9.5	26.8	21.3	47.9	1.1	2.3	22.3
Middle Atlantic.....	205	133	14.6	93.0	12.0	24.6	66.7	166.1	160.6	325.1	10.5	14.0	133.8
New York.....	87	55	5.9	39.8	4.8	9.8	28.7	69.3	67.6	136.5	4.7	6.2	58.0
New Jersey.....	50	31	4.0	25.7	3.2	6.6	17.4	42.8	37.2	80.1	2.6	3.4	34.4
Pennsylvania.....	68	47	4.8	27.5	4.0	8.2	20.6	54.0	55.8	108.5	3.2	4.4	41.4
East North Central....	138	97	14.6	100.0	11.5	24.1	71.7	166.7	210.6	375.6	11.1	14.8	141.8
Ohio.....	38	25	5.0	33.7	4.2	8.8	25.9	60.2	75.1	134.0	4.9	5.0	47.3
Illinois.....	58	40	5.0	35.9	3.8	8.0	24.9	58.2	75.0	132.4	2.2	5.2	49.3
Michigan.....	15	11	1.7	12.1	1.3	2.9	8.7	18.5	29.2	47.5	1.8	1.7	16.9
West North Central....	30	22	3.1	21.7	2.4	5.0	15.2	33.3	51.7	85.7	4.9	3.1	29.4
Missouri.....	13	11	1.0	6.3	0.8	1.6	4.3	11.4	11.9	23.5	(D)	(D)	(D)
South Atlantic.....	48	38	6.2	36.7	4.8	9.8	24.4	60.1	85.1	144.9	4.8	6.3	50.7
Maryland.....	10	8	1.9	11.7	1.5	2.9	7.9	16.2	19.2	35.7	1.0	2.1	16.8
North Carolina.....	16	14	0.9	4.6	0.8	1.6	3.3	8.7	10.7	19.3	0.6	(D)	(D)
Florida.....	7	5	0.5	2.2	0.4	0.8	1.5	4.4	4.1	8.5	0.4	0.5	4.6
East South Central....	17	12	1.1	6.6	0.9	2.0	4.7	12.9	15.8	28.6	2.1	0.9	6.2
Kentucky.....	5	4	0.4	2.2	0.3	0.6	1.7	4.0	6.1	10.1	1.6	(D)	(D)
Tennessee.....	8	5	0.6	3.4	0.5	1.0	2.4	6.9	6.8	13.7	0.4	0.5	3.9
West South Central....	23	19	1.8	9.4	1.4	3.0	6.5	19.6	27.0	46.1	0.9	1.9	17.1
Texas.....	9	8	0.8	3.9	0.6	1.3	2.8	8.3	12.6	20.4	(D)	1.1	10.5
Mountain.....	5	2	0.1	0.6	0.1	0.2	0.4	0.9	1.0	1.9	(Z)	0.2	1.2
Pacific.....	50	30	3.5	26.5	2.8	6.0	19.5	53.2	57.4	109.8	4.3	3.9	41.9
California.....	43	28	3.2	23.7	2.5	5.4	17.5	47.8	51.9	99.1	(D)	3.5	37.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2651- --	FOLDING PAPERBOARD BOXES.....	(X)	1,123.3	3,006.5	1,026.0
	Bending paperboard packaging, and packaging components, including die-cut, nonfolded packaging items; products except liquid, moist, oily, or perishable foods:				
26510 14	Dry food and produce, including pet and animal food (excluding trays and boards for retail packaging).....	996.9	320.8	3,006.5	1,026.0
26510 21	Bottled and canned beverages, including carriers for alcoholic and nonalcoholic beverages.....	311.6	122.3		
26510 31	Soaps and detergents.....	228.5	68.7		
26510 41	Tobacco.....	89.4	35.3		
26510 71	Cosmetics and medicinal products.....	<sup>e</sup> 214.5	110.0		
26510 81	Paper goods or products, including book mailers.....	<sup>e</sup> 311.2	99.5		
26510 98	All other end uses, n.e.c.....	576.6	236.7		
26510 00	Bending paperboard packaging, and packaging components, n.s.k. (For companies with 10 or more employees, See Note.).....	(X)	124.2		
26510 02	Bending paperboard packaging, and packaging components, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	5.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2651.--FOLDING PAPERBOARD BOXES					
	Materials, and supplies, total.....		(X)	625.5	(X)	580.0
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1,000 short tons.	(NA)	5.8	2.3	0.7
262106	Purchased (market) paper.....	do.....	<sup>e</sup> 97.7	24.5	42.8	15.5
	Paperboard:					
263102	Own paperboard, produced at this location or at other affiliated or associated mills.....	do.....	1,634.1	235.8	1,657.9	234.6
263103	Purchased (market) paperboard.....	do.....	1,200.9	190.1	1,368.2	200.1
261106	Petroleum wax.....	Million lbs.....	<sup>e</sup> 14.9	1.9	18.9	1.7
26231	Aluminum foil.....	do.....	<sup>e</sup> 2.8	1.9	(NA)	1.1
26301	Printing inks (complete formulations).....	do.....	<sup>e</sup> 36.6	27.0	30.0	25.7
26000	All other materials and components, parts, containers, and supplies consumed.....		(X)	89.5	(X)	98.5
26000	Materials, and supplies, n.s.k.....		(X)	49.0	-	-

- Represents zero. <sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind.  
(X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2651, these small establishments accounted for approximately .4 percent of payrolls and .5 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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# 1967 CENSUS OF MANUFACTURES



MC67(P)-26C-2

## INDUSTRY SERIES

**preliminary  
report**

### Setup paperboard boxes

SIC Code 2652

The Setup Paperboard Boxes Industry includes establishments primarily engaged in manufacturing setup paperboard boxes from purchased paperboard.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Setup Paperboard Boxes Industry amounted to \$279.5 million, an increase of 23.8 percent compared with 1963. Value added by manufacture at \$158.6 million in 1967 was 20.4

percent more than value added in 1963. Average employment in the industry showed an increase of 2.0 percent from 1963 to a total of 20.9 thousand employees in 1967.

Of the \$279.5 million total value of shipments and other receipts of establishments classified as setup paperboard boxes, \$39.5 million were products primary to other industries; and \$6.5 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 91 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)							
INDUSTRY 2652.--SETUP PAPERBOARD BOXES														
1967 Census....	453	294	20.9	99.5	18.1	35.0	72.8	158.6	121.4	279.5	6.1	30.5	92	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	20.9	94.4	18.1	34.6	69.6	131.6	124.4	256.6	7.0	29.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	21.4	88.6	18.7	34.7	65.6	156.0	114.4	270.7	5.7	26.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	20.1	86.0	17.3	35.4	64.0	134.9	100.6	236.7	*4.7	24.8	(NA)	(NA)
1963 Census.....	503	317	20.5	82.2	17.7	34.5	61.5	131.7	95.5	225.8	5.0	26.8	91	87
1962 ASM <sup>1</sup> .....	(NA)	(NA)	20.4	81.4	17.4	34.8	61.1	128.9	98.1	226.0	*4.7	24.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	20.5	79.4	17.1	34.5	58.5	127.7	95.6	222.4	*3.8	24.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	22.2	83.4	18.6	37.7	60.7	128.0	95.6	224.2	(S)	22.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	22.0	81.1	18.6	37.1	59.9	127.9	95.8	223.5	(S)	25.5	(NA)	(NA)
1958 Census <sup>2</sup> ...	527	347	23.5	80.9	19.9	38.3	59.4	124.9	95.1	219.2	5.9	24.2	92	87

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of setup paperboard boxes shipped by all producers in 1967 was \$289.5 million of which \$250.0 million, or 86 percent, were shipped by plants classified in industry 2652, Setup Paperboard Boxes, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 87 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2652.--SETUP PAPERBOARD BOXES												
United States, total.....	453	294	20.9	99.5	18.1	35.0	72.8	158.6	121.4	279.5	6.1	20.5	131.7
New England.....	65	47	3.8	17.9	3.2	6.0	12.3	27.4	23.2	50.5	1.0	3.5	24.9
Massachusetts.....	36	27	2.4	11.7	2.0	3.8	8.1	18.2	15.2	33.4	0.8	2.4	17.3
Rhode Island.....	13	10	0.7	2.9	0.6	1.2	2.0	4.4	3.0	7.3	0.1	0.5	2.5
Connecticut.....	7	5	0.4	2.4	0.4	0.7	1.5	3.4	2.0	5.4	0.1	(D)	(D)
Middle Atlantic.....	182	117	8.9	44.0	7.7	15.1	32.1	70.9	51.7	122.5	2.6	9.0	55.6
Pennsylvania.....	54	37	2.2	9.5	2.0	3.8	7.4	14.9	12.0	26.9	1.0	2.5	13.2
East North Central....	61	36	2.7	13.0	2.3	4.4	9.5	19.7	13.7	33.4	0.6	2.8	17.6
Ohio.....	12	8	0.6	3.4	0.6	1.1	2.5	4.9	3.5	8.4	0.1	(D)	(D)
Illinois.....	35	19	1.4	6.5	1.2	2.2	4.7	9.9	7.3	17.1	0.2	1.4	9.3
Michigan.....	8	4	0.5	2.2	0.4	0.8	1.6	3.3	1.7	5.0	0.1	0.4	2.8
West North Central....	16	10	0.9	4.3	0.7	1.6	3.4	7.3	5.3	12.6	0.1	0.6	4.6
South.....	90	59	3.3	13.2	3.0	5.7	10.4	21.9	20.2	41.9	1.6	3.2	19.0
Maryland.....	8	3	0.3	1.4	0.3	0.5	1.1	2.6	1.7	4.3	0.1	(D)	(D)
Virginia.....	5	3	0.1	0.6	0.1	0.2	0.4	0.8	0.7	1.5	(D)	0.3	1.9
South Carolina.....	5	4	0.2	0.7	0.2	0.3	0.6	1.1	1.0	2.1	0.1	0.2	1.2
Florida.....	7	5	0.3	1.2	0.3	0.6	1.0	2.1	1.8	3.7	0.1	0.5	2.6
West.....	39	25	1.4	7.1	1.2	2.2	5.1	11.4	7.2	18.7	0.1	1.2	10.1
California.....	28	20	1.2	6.1	1.0	1.9	4.4	9.9	6.1	16.1	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2652- --	SETUP PAPERBOARD BOXES.....	(X)	289.5	583.6	232.3
	Setup paperboard boxes:				
26520 21	Textiles, wearing apparel and hosiery.....	<sup>e</sup> 268.4	93.0	583.6	232.3
26520 31	Department stores and other retail stores.....	(NA)	33.1		
26520 41	Confections.....	(NA)	20.4		
26520 51	Cosmetics, including soap.....	(NA)	17.8		
26520 98	All other end uses not specified above.....	(NA)	72.3		
26520 00	Setup paperboard boxes, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	47.9		
26520 02	Setup paperboard boxes, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	5.0		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2652.--SETUP PAPERBOARD BOXES					
	Materials and supplies, total.....	.....	(X)	118.2	(X)	90.7
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1,000 s. tons....	(NA)	1.4	0.9	(S)
262106	Purchased (market) paper.....	...do.....	<sup>e</sup> 48.8	17.4	50.0	17.0
	Paperboard:					
263102	Own paperboard, produced at this location or at other affiliated or associated mills.....	...do.....	<sup>e</sup> 89.1	9.1	54.1	5.7
263103	Purchased (market) paperboard.....	...do.....	<sup>e</sup> 391.8	42.3	338.8	37.8
291106	Petroleum wax.....	Million lbs.....	16.2	1.5	-	-
335231	Aluminum foil.....	...do.....	(D)	(D)	(D)	(D)
335203	Aluminum sheet and plate.....	...do.....	(D)	(D)	-	(D)
289301	Printing inks, (complete formulations).....	...do.....	<sup>e</sup> 0.7	0.8	0.6	0.6
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	24.5	(X)	28.2
971000	Materials and supplies, n.s.k.....	.....	(X)	14.9	-	-

-Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. <sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2652, these small establishments accounted for approximately 1.2 percent of payrolls and 1.9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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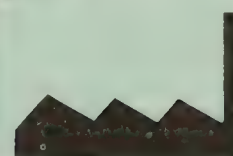
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-26C-3

## INDUSTRY SERIES

### Corrugated and solid fiber boxes

SIC Code 2653

**preliminary  
report**

The Corrugated and Solid Fiber Boxes Industry includes establishments primarily engaged in manufacturing corrugated and solid fiber boxes and related products from purchased paperboard of fiber stock. Important products of this industry include corrugated and solid fiberboard boxes, pads, partitions, display items, pallets, single face products, and corrugated sheets.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Corrugated and Solid Fiber Boxes Industry amounted to \$2,955.9 million, an increase

of 36.5 percent compared with 1963. Value added by manufacture at \$1,128.2 million in 1967 was 40.3 percent more than value added in 1963. Average employment in the industry showed an increase of 16.6 percent from 1963 to a total of 97.0 thousand employees in 1967.

Of the \$2,955.9 million total value of shipments and other receipts of establishments classified in the Corrugated and Solid Fiber Boxes Industry, \$61.8 million were products primary to other industries; and \$60.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 98 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 97 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2653. --CORRUGATED AND SOLID FIBER BOXES													
1967 Census....	1,073	803	97.0	655.4	72.9	152.3	434.4	1,128.2	1,828.4	2,955.9	123.3	257.6	98	98
1966 ASM <sup>1</sup> .....	(NA)	(NA)	96.1	635.3	73.3	156.9	428.4	1,091.2	1,805.5	2,891.2	117.2	262.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	90.5	578.3	67.6	147.3	388.8	933.1	1,626.1	2,558.6	93.6	234.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	86.4	534.0	64.7	140.1	355.3	831.3	1,515.7	2,345.5	71.6	217.8	(NA)	(NA)
1963 Census....	923	651	83.2	485.6	62.8	132.3	323.8	804.0	1,367.7	2,166.1	54.1	210.4	97	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	83.3	473.9	63.7	134.8	320.3	805.9	1,370.6	2,179.0	65.2	191.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	79.7	439.8	60.6	127.2	294.3	708.7	1,255.0	1,970.7	50.8	177.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	79.9	418.0	60.9	125.6	280.8	686.1	1,250.5	1,937.1	*54.8	174.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	77.8	407.5	59.6	126.1	276.4	678.2	1,228.8	1,904.8	*59.5	171.6	(NA)	(NA)
1958 Census <sup>2</sup> ....	805	514	70.8	345.1	53.5	110.5	234.0	596.9	1,042.1	1,635.6	52.0	159.2	97	95

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary****Rocco C. Siciliano, Under Secretary****Harold C. Passer, Assistant Secretary for Economic Affairs****BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of corrugated and solid fiber boxes shipped by all producers in 1967 was \$2,891.0 million of which \$2,833.2 million, or 98 percent, were shipped by plants classified in industry 2653, Corrugated and Solid Fiber Boxes, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2653. --CORRUGATED AND SOLID FIBER BOXES												
United States, total.....	1,073	803	97.0	655.4	72.9	152.3	434.4	1,128.2	1,828.4	2,955.9	123.3	83.2	804.0
New England.....	74	48	5.8	37.7	4.4	9.1	24.2	65.9	90.0	155.8	4.1	5.0	49.8
Maine.....	5	3	0.3	1.5	0.3	0.5	1.0	3.2	4.3	7.6	0.3	0.2	1.9
Massachusetts.....	44	27	3.9	25.8	2.9	6.1	16.5	44.1	61.7	105.7	3.1	3.5	35.0
Rhode Island.....	1	2	0.1	0.9	0.1	0.3	0.7	1.9	2.5	4.4	0.1	(D)	(D)
Connecticut.....	19	13	1.3	8.2	0.9	1.9	5.1	14.1	17.5	31.4	0.5	1.0	10.3
Middle Atlantic.....	230	173	21.1	146.0	15.8	33.1	93.7	262.7	339.5	602.0	22.1	20.2	202.3
New York.....	92	64	6.7	47.8	5.1	10.7	30.2	86.9	101.2	188.1	3.6	7.2	78.5
New Jersey.....	67	54	7.2	50.3	5.3	11.0	32.3	91.4	118.0	209.3	8.8	6.9	66.1
Pennsylvania.....	71	55	7.1	47.9	5.4	11.4	31.2	84.3	120.3	204.6	9.7	6.1	57.8
East North Central....	317	246	31.5	214.6	23.6	48.9	143.4	351.0	563.2	913.7	34.5	27.1	257.3
Ohio.....	75	61	8.3	55.8	6.3	13.0	38.1	95.1	143.6	238.6	8.8	7.0	64.1
Indiana.....	33	25	3.9	26.1	2.9	6.0	17.7	40.4	63.0	103.2	2.7	3.4	30.7
Illinois.....	112	87	10.2	69.8	7.6	15.9	46.1	109.9	181.4	291.7	11.7	9.2	90.8
Michigan.....	59	46	5.0	34.0	3.7	7.6	23.1	56.4	93.2	149.4	7.9	4.2	39.1
Wisconsin.....	38	27	4.2	28.9	3.0	6.3	18.4	49.2	82.0	130.8	3.5	3.3	32.6
West North Central....	79	63	6.1	42.6	4.5	9.5	26.5	71.0	128.2	198.8	10.6	5.4	50.4
Minnesota.....	18	17	1.6	12.1	1.2	2.5	7.6	20.9	37.4	58.1	1.5	1.1	13.1
Iowa.....	12	9	0.9	6.4	0.7	1.5	3.9	12.1	18.8	30.7	(D)	(D)	(D)
Missouri.....	35	26	2.2	14.9	1.6	3.3	9.2	22.9	44.7	67.5	5.4	1.7	13.2
Kansas.....	5	5	0.8	5.6	0.5	1.2	3.5	9.5	16.0	25.5	1.4	1.1	10.1
South Atlantic.....	130	101	12.2	76.1	9.3	19.8	51.6	130.2	244.8	375.3	23.4	9.0	78.7
Delaware.....	4	4	0.3	1.8	0.2	0.4	1.1	2.7	5.3	7.9	(D)	(D)	(D)
Maryland.....	22	16	1.6	9.8	1.2	2.5	6.2	17.2	28.6	45.8	(D)	1.3	10.3
Virginia.....	19	14	1.7	10.4	1.4	2.9	7.1	19.6	31.7	51.4	3.6	1.0	10.0
West Virginia.....	7	7	0.7	3.6	0.5	1.1	2.5	6.9	8.3	15.2	(D)	(D)	(D)
North Carolina.....	22	17	2.2	13.3	1.7	3.8	9.2	21.1	42.1	63.3	7.1	1.6	15.8
South Carolina.....	8	6	0.9	5.2	0.7	1.4	3.6	9.5	18.0	27.6	2.2	(D)	(D)
Georgia.....	23	16	2.6	16.9	2.1	4.3	12.0	28.6	62.7	91.4	2.9	2.0	18.3
Florida.....	25	21	2.2	15.0	1.6	3.5	9.9	24.6	48.0	72.7	2.1	1.6	14.8
East South Central....	46	41	4.6	26.8	3.6	7.5	18.2	46.8	82.5	129.1	6.0	3.4	31.2
Tennessee.....	24	21	2.4	13.6	1.9	3.9	9.2	24.7	41.4	66.1	3.4	1.8	15.6
Alabama.....	8	5	0.5	2.6	0.4	0.8	1.7	4.0	7.4	11.3	0.1	0.3	4.2
West South Central....	73	51	5.5	35.8	4.2	8.7	23.9	64.6	120.1	185.1	6.8	4.4	44.7
Louisiana.....	11	8	1.5	9.9	1.2	2.4	7.2	18.9	31.9	51.0	1.1	1.5	15.4
Texas.....	49	33	3.0	18.7	2.2	4.7	11.9	31.3	64.4	96.0	4.7	2.0	18.9
Mountain.....	12	10	0.8	5.0	0.6	1.2	3.4	11.4	17.0	28.3	0.6	0.6	8.1
Colorado.....	8	6	0.4	2.9	0.3	0.7	1.9	6.0	9.3	15.3	0.5	0.3	5.3
Pacific.....	112	70	9.4	70.7	7.1	14.5	49.5	124.6	243.1	367.9	15.1	8.2	81.4
Washington.....	15	10	1.8	13.8	1.4	2.8	9.8	22.4	47.0	69.2	2.8	1.3	12.7
California.....	92	55	7.1	53.5	5.4	10.9	37.3	96.5	184.2	281.2	12.1	6.6	65.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity <sup>1</sup> (1,000 short tons)	Value (million dollars)	Quantity <sup>1</sup> (1,000 short tons)	Value (million dollars)
2653- --	CORRUGATED AND SOLID FIBER BOXES.....	(NA)	2,891.0	9,933.2	2,136.2
	Corrugated and solid fiber boxes, including pallets:				
	Corrugated shipping containers, classified by end use:				
26530 12	Food and beverages.....	3,745.1	850.1	9,316.4	2,002.3
26530 13	Paper and allied products.....	655.5	146.4		
26530 15	Glass, clay, and stone products.....	458.0	100.2		
26530 16	Metal products, machinery, equipment, and supplies, except electrical.	645.1	161.9		
26530 18	Electrical machinery, equipment, supplies, and appliances.....	574.0	141.0		
26530 19	All other end uses not specified above (furniture, chemicals, including drugs, paints, varnishes, etc.).....	4,600.9	1,019.3		
26530 51	Solid fiber.....	181.3	42.2	95.8	25.2
26530 67	Corrugated paperboard in sheets and rolls, lined and unlined.....	803.9	160.5	251.8	42.7
26530 68	Corrugated and solid fiber pallets, pads, and partitions.....	320.3	73.4	122.7	27.2
26530 00	Corrugated and solid fiber boxes, n.s.k. (For companies with 10 or more employees. See Note.).....	(NA)	<sup>2</sup> 190.1	146.6	38.8
26530 02	Corrugated and solid fiber boxes, n.s.k. (For companies with less than 10 employees. See Note.).....	(NA)	<sup>2</sup> 6.2		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind.

<sup>1</sup>Establishments engaged in the manufacture of containers and boxes for their own consumption in the manufacture (e.g., packaging) of other products at the same location were not requested to report the value of such products nor the consumption of paper and paperboard in their manufacture, unless a separate container plant was recognized in the bookkeeping records of the company. The quantity columns show the quantity of paper and paperboard consumed during the year in the manufacture of paperboard containers and boxes.

<sup>2</sup>The not specified by kind figures for 1967 includes corrugated shipping containers not classified by end use. In 1963, the data for corrugated shipping containers not classified by end use is shown on one line and not included in the not specified by kind figures.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2653.--CORRUGATED AND SOLID FIBER BOXES					
	Materials, and supplies, total.....		(X)	1,761.4	(X)	1,323.7
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1,000 short tons.	(S)	(S)	(S)	(S)
262106	Purchased (market) paper.....	...do.....	137.0	16.9	13.5	2.0
	Paperboard:					
263102	Own paperboard, produced at this location or at other affiliated or associated mills.....	...do.....	7,008.1	862.0	5,265.5	643.9
263103	Purchased (market) paperboard.....	...do.....	4,900.9	626.3	4,284.6	527.5
291106	Petroleum wax.....	Million lbs.....	<sup>e</sup> 64.1	6.5	19.2	1.6
335231	Aluminum foil.....	...do.....	(D)	(D)	(D)	(D)
335203	Aluminum sheet and plate.....	...do.....	(NA)	0.4	(D)	(D)
289301	Printing inks (complete formulations).....	...do.....	<sup>e</sup> 24.2	19.0	15.4	11.1
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	153.0	(X)	137.5
976000	Materials, and supplies, n.s.k.....		(X)	76.5	-	-

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. <sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2653, these small establishments accounted for approximately 0.2 percent of payrolls and 0.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

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POSTAGE AND FEES  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS



1967 CENSUS OF  
MANUFACTURES

MC67(P)-26C-4

## INDUSTRY SERIES

preliminary  
report

## Sanitary food containers

SIC Code 2654

The Sanitary Food Containers Industry includes establishments primarily engaged in manufacturing food containers from special food board. Important products of this industry include fluid milk containers; folding paraffined cartons for butter, margarine, and shortening; ice cream containers; frozen food containers; liquid tight containers; round nested food containers; paper cups for hot or cold drinks; and pails for food and ice cream.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Sanitary Food Containers Industry amounted to \$1,121.4 million, an increase of 23.8 percent compared with 1963. Value added by manufacture at \$520.1 million in 1967 was 29.3 percent more than value added in 1963. Average employment in the industry showed an increase of 10.9 percent from 1963 to a total of 36.5 thousand employees in 1967.

Of the \$1,121.4 million total value of shipments and other receipts of establishments classified in the Sanitary Food Containers Industry, \$89.9 million were products primary to other industries; and \$61.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the speciali-

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2654. --SANITARY FOOD CONTAINERS														
1967 Census....	249	189	36.5	220.6	29.4	62.1	162.4	520.1	608.3	1,121.4	49.3	175.8	92	88
1966 ASM <sup>1</sup> .....	(NA)	(NA)	31.8	193.0	25.1	53.3	138.5	426.2	548.2	964.1	36.5	161.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	31.8	185.2	24.9	52.6	129.5	399.2	516.2	911.4	34.7	146.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	32.3	189.1	25.3	53.7	133.4	405.2	510.1	916.1	31.4	140.4	(NA)	(NA)
1963 Census....	186	144	32.9	182.7	25.9	53.4	129.2	402.2	513.0	905.9	37.9	143.2	92	92
1962 ASM <sup>1</sup> .....	(NA)	(NA)	32.4	176.4	25.8	54.2	126.8	388.8	482.4	872.5	*50.9	130.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	32.0	165.3	25.5	53.5	119.5	374.1	441.0	810.3	29.7	128.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	31.0	155.7	24.6	51.8	112.8	365.1	406.6	770.0	22.6	117.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	30.3	150.2	24.2	51.4	110.1	346.4	402.9	746.2	*60.0	115.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	136	125	29.5	139.1	23.4	49.8	103.5	309.2	374.4	680.1	35.8	109.4	92	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

zation ratio for the industry, was 92 percent in 1963.

The total value of sanitary food containers shipped by all producers in 1967 was \$1,101.7 million of which \$969.7 million, or 88 percent, were shipped by plants classified in industry 2654, Sanitary Food Containers, while the remainder was shipped by plants classified in other

industries. This percent, called the coverage ratio, was 92 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2654. --SANITARY FOOD CONTAINERS												
United States, total.....	249	189	36.5	220.6	29.4	62.1	162.4	520.1	608.3	1,121.4	49.3	32.9	402.2
New England.....	26	19	2.8	16.3	2.3	4.9	11.6	35.5	40.0	74.1	3.4	1.5	19.6
Massachusetts.....	17	11	1.4	8.6	1.2	2.5	6.3	16.0	20.0	36.0	1.4	(D)	(D)
Middle Atlantic.....	52	33	7.4	44.8	5.9	12.4	33.4	100.4	99.5	200.4	4.9	9.5	99.7
Pennsylvania.....	10	7	2.4	14.9	1.7	3.8	9.4	33.4	37.2	72.5	2.2	2.9	29.2
East North Central....	50	42	10.3	65.1	8.3	17.2	47.7	127.3	169.8	295.9	17.6	8.2	89.9
Ohio.....	9	7	0.8	4.3	0.6	1.3	3.3	10.0	22.9	32.2	0.9	(D)	(D)
Illinois.....	19	17	3.3	19.8	2.7	5.5	14.2	43.0	40.4	83.0	8.8	2.6	26.5
Michigan.....	9	8	3.9	25.4	3.1	6.4	18.2	41.5	59.4	100.1	4.1	3.5	35.6
West North Central....	18	16	3.8	21.9	3.1	6.3	16.8	58.7	65.8	123.0	2.0	3.3	49.7
Missouri.....	7	7	2.5	14.1	2.1	4.2	10.7	41.3	33.1	72.9	(D)	2.2	35.2
South.....	66	53	8.7	47.8	6.9	15.1	34.0	138.5	156.7	291.8	19.3	6.3	87.3
South Atlantic.....	40	33	6.5	35.3	5.0	11.1	24.2	94.8	104.2	196.2	(D)	4.5	59.0
Georgia.....	11	10	1.6	9.0	1.3	3.0	6.9	26.1	28.6	53.5	3.0	1.1	14.4
Florida.....	9	7	0.5	2.7	0.4	0.8	2.0	6.9	9.8	16.5	0.7	0.3	3.4
Mountain.....	4	3	0.2	1.5	0.2	0.4	1.1	3.8	7.6	11.4	0.2	(D)	(D)
Pacific.....	33	23	3.4	23.1	2.8	5.8	17.8	56.0	68.9	124.6	1.8	(D)	(D)
California.....	26	19	3.2	21.6	2.6	5.4	16.6	52.2	60.9	112.9	1.7	3.6	49.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2654- --	SANITARY FOOD CONTAINERS.....	(X)	1,101.7	(X)	854.7
26541 13	Milk and milk-type cartons, including juices, beverages, and other products.....	773.4	278.8	668.3	284.8
26542 --	Cups and liquid-tight containers.....	458.3	384.7	393.2	300.0
26542 33	Liquid-tight and round nested food containers, including lids and tops..	151.9	126.2		
26542 35	Drinking cups and portion serving cups.....	306.4	258.5		
26542 00	Cups and liquid-tight containers, n.s.k.....	(X)	-		
26543 --	Other sanitary food containers, boards and trays.....	(X)	428.6	(X)	268.4
	Food serving products (sanitary food containers):				
26543 11	Stamped plates, dishes, spoons, and similar products.....	<sup>e</sup> 125.9	51.8	93.8	39.1
26543 21	Soda straws, except glass and plastic.....	<sup>e</sup> 7.3	7.9	9.5	12.4
26543 19	Other paperboard items.....	<sup>e</sup> 187.2	72.5	64.0	37.1
26543 29	Other paper items, including table cloths.....	<sup>e</sup> 33.7	14.3		
	For liquid, moist, oily or perishable foods, including frozen foods:				
26543 43	Frozen foods and fresh bakery, including frozen bakery.....	328.0	136.2	111.3	52.6
26543 53	Butter and ice cream packages and food pails.....	158.8	77.0	172.4	77.7
26543 57	Processed meats, margarine, lard, and shortening.....	86.5	38.9	115.1	49.5
26543 73	Trays and boards for fresh meat, poultry, and produce for retail packaging.....	<sup>e</sup> 63.1	27.9		
26543 00	Other sanitary food containers, boards and trays, n.s.k.....	(X)	2.1	3.0	1.6
26540 00	Sanitary food containers, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	7.8		
26540 02	Sanitary food containers, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	1.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero.

<sup>e</sup>From 10 to 30 percent of this figure was estimated.

n.s.k. Not specified by kind.

(X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2654.--SANITARY FOOD CONTAINERS					
	Materials, and supplies, total.....		(x)	603.7	(x)	471.0
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1,000 short tons..	23.9	5.4	17.5	3.0
262106	Purchased (market) paper.....	...do.....	127.3	30.9	69.5	18.4
	Paperboard:					
263102	Own paperboard, produced at this location or at other affiliated or associated mills.....	...do.....	1,340.9	283.4	1,060.8	236.6
263103	Purchased (market) paperboard.....	...do.....	654.6	120.6	557.4	113.4
291106	Petroleum wax.....	Million lbs.....	212.7	14.9	222.5	17.4
335231	Aluminum foil.....	...do.....	(D)	(D)	(D)	(D)
335203	Aluminum sheet and plate.....	...do.....	(D)	(D)	(D)	(D)
289301	Printing inks (complete formulations).....	...do.....	e17.0	15.6	12.7	10.6
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	91.5	(X)	65.5
976000	Materials and supplies, n. s. k.....		(X)	39.9	-	-

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. <sup>e</sup>From 10 to 30 percent of this figure was estimated. n. s. k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2654, these small establishments accounted for approximately .18 percent of payrolls and .15 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

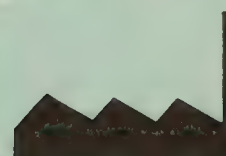
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-26C-5

## INDUSTRY SERIES

**preliminary  
report**

### Fiber cans, drums, and related materials

SIC Code 2655

The Fiber Cans, Tubes, Drums, and Similar Products Industry includes establishments primarily engaged in manufacturing fiber cans, cones, drums, and similar products with or without metal ends, from purchased materials; and vulcanized fiber boxes.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Fiber Cans, Drums, and Related Materials Industry amounted to \$385.3 million, an increase of 48.0 percent compared with 1963. Value added by manufacture at \$181.2 million in

1967 was 43.5 percent more than value added in 1963. Average employment in the industry showed an increase of 18.9 percent from 1963 to a total of 15.7 thousand employees in 1967.

Of the \$385.3 million total value of shipments and other receipts of establishments classified as fiber cans, drums, and related materials, \$66.7 million were products primary to other industries; and \$7.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2655.--FIBER CANS, DRUMS, AND RELATED MATERIALS														
1967 Census....	269	160	15.7	93.7	13.3	27.9	73.0	181.2	203.1	385.3	13.3	36.9	94	84
1966 ASM <sup>1</sup> .....	(NA)	(NA)	15.6	91.4	13.5	27.9	71.8	168.2	186.3	353.0	50.3	39.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	14.6	81.5	12.6	25.3	63.0	153.2	164.3	315.3	12.8	35.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	13.3	71.3	11.1	22.9	55.1	134.4	144.4	278.5	7.9	25.6	(NA)	(NA)
1963 Census....	246	137	13.2	67.5	11.2	22.8	50.3	126.2	134.2	260.3	7.7	25.4	95	80
1962 ASM <sup>1</sup> .....	(NA)	(NA)	12.2	59.9	10.2	22.1	44.4	104.5	109.9	213.0	6.9	23.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	11.7	55.5	9.7	19.7	41.5	94.5	97.0	189.6	7.0	21.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	11.3	51.9	9.5	19.1	39.1	84.9	88.9	173.6	4.4	16.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	11.3	51.2	9.4	19.5	39.0	85.6	91.1	177.4	4.9	16.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	198	112	11.0	47.9	9.2	18.4	36.5	79.5	86.0	165.6	8.3	17.4	98	83

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of Fiber Cans, Tubes, Drums, and Similar Products shipped by all producers in 1967 was \$420.9 million of which \$354.2 million, or 84 percent, were shipped by plants classified in industry 2655, Fiber Cans, Drums, and Related Materials, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 80 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2655.--FIBER CANS, DRUMS, AND RELATED MATERIALS													
United States, total.....	269	160	15.7	93.7	13.3	27.9	73.0	181.2	203.1	385.3	13.3	13.2	126.2
New England.....	22	14	1.2	6.2	1.0	2.1	4.7	10.7	11.0	21.6	0.4	1.0	8.3
Massachusetts.....	16	10	0.5	2.7	0.4	0.9	2.0	5.2	4.9	10.1	0.2	(D)	(D)
Middle Atlantic.....	63	34	3.6	21.6	3.1	6.6	16.9	42.8	44.7	87.6	2.8	3.3	33.3
New York.....	18	9	1.0	5.6	0.9	1.8	4.2	10.4	7.5	17.8	0.4	0.8	7.0
New Jersey.....	23	14	1.2	7.4	1.0	2.1	5.6	13.9	14.4	28.3	0.8	1.4	13.4
Pennsylvania.....	22	11	1.4	8.5	1.2	2.6	7.1	18.5	22.7	41.5	1.7	1.2	12.9
East North Central....	64	40	3.7	22.9	3.1	6.7	17.6	41.9	46.3	87.9	3.4	3.2	30.4
Ohio.....	18	17	1.6	10.1	1.4	3.0	7.9	16.4	17.3	33.7	1.1	1.4	11.9
Illinois.....	21	9	1.0	5.5	0.8	1.7	4.2	9.7	9.3	19.0	0.5	0.9	7.6
Michigan.....	9	5	0.3	2.0	0.2	0.5	1.5	4.3	5.5	9.9	0.2	0.2	3.1
West North Central....	11	8	0.8	5.0	0.7	1.5	4.0	9.7	13.4	23.1	0.9	0.9	8.8
Kansas.....	2	1	0.1	0.7	0.1	0.2	0.6	1.4	2.1	3.6	0.3	(D)	(D)
South Atlantic.....	47	29	4.0	24.6	3.4	7.0	19.6	45.7	48.5	95.2	4.2	3.0	27.2
North Carolina.....	11	6	0.4	1.7	0.3	0.6	1.2	3.2	3.3	6.4	0.2	0.2	1.5
Florida.....	13	9	0.9	5.7	0.8	1.7	4.6	14.9	23.7	39.5	2.2	0.1	3.4
East South Central....	15	9	0.9	4.5	0.8	1.7	3.4	10.5	9.6	20.0	0.4	0.6	5.6
Tennessee.....	5	4	0.4	2.4	0.4	0.9	1.9	5.6	5.9	11.5	0.1	0.2	3.2
Alabama.....	4	2	0.3	0.9	0.2	0.5	0.8	2.2	1.7	3.8	(D)	(D)	(D)
West South Central....	18	13	0.5	2.9	0.4	0.9	2.2	7.9	13.7	21.6	0.3	0.9	2.9
Texas.....	13	8	0.4	2.0	0.3	0.7	1.6	5.3	9.6	14.9	(D)	0.2	2.3
West.....	29	13	0.9	6.1	0.8	1.5	4.6	12.1	16.0	28.3	0.9	0.8	9.7
California.....	24	11	0.8	5.0	0.6	1.2	3.7	10.9	12.6	23.6	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2655- --	FIBER CANS, DRUMS, AND RELATED MATERIAL, TOTAL.....	(X)	420.9	(X)	302.1
26551 51	Paperboard fiber drums with metal, wood, or paperboard ends.....	122.1	93.4	99.7	62.0
26552 --	Fiber cans, tubes, and similar fiber products.....	(X)	317.3	(X)	236.9
26552 23	Cans, all fiber bodies, with metal ends.....	142.5	113.6	61.1	39.8
26552 24	Cans, bodies with combinations of fiber and other materials, including aluminum foil, with metal ends.....	73.7	69.3	(NA)	74.3
26552 27	Cans, bodies all fiber and combination constructions with at least one end other than metal.....	23.1	6.8	16.1	9.2
26552 31	Cores and tubes.....	422.4	94.4	301.7	67.9
26552 71	Paperboard cones, reels, spools, bobbins, and blocks.....	47.8	21.3	46.3	17.7
26552 98	All vulcanized fiber products--boxes, cans, tubes, drums, etc.....	(NA)	9.3	31.5	26.6
26552 00	Fiber cans, tubes, and similar fiber products, n.s.k.....	(X)	2.6	(X)	1.4
26550 00	Fiber cans, drums, and related materials, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	7.6	(X)	3.2
26550 02	Fiber cans, drums, and related material, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	2.6		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2655.--FIBER CANS, DRUMS, AND RELATED MATERIAL					
	Materials, and supplies, total.....	.....	(X)	192.9	(X)	128.9
	Paper:					
262105	Own paper, produced at this location or at other affiliated or associated mills.....	1,000 short tons..	59.6	7.7	10.0	1.2
262106	Purchased (market) paper.....	...do.....	70.5	11.9	43.5	7.1
	Paperboard:					
263102	Own paperboard, produced at this location or at other affiliated or associated mills.....	...do.....	302.3	26.1	230.6	19.8
263103	Purchased (market) paperborad.....	...do.....	244.4	28.7	246.8	28.9
291106	Petroleum wax.....	Million lbs.....	2.8	0.4	(NA)	(S)
335231	Aluminum foil.....	...do.....	(NA)	5.4	13.2	6.5
335203	Aluminum sheet and plate.....	...do.....	16.9	6.5	12.4	5.4
289301	Printing inks (complete formulations).....	...do.....	(NA)	0.7	(S)	(S)
970099	All other materials and components, parts, containers, and supplies consumed.....	.....	(X)	100.0	(X)	59.5
976000	Materials and supplies, n.s.k.....	.....	(X)	5.5	-	-

- Represents zero. (NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2655, these small establishments accounted for approximately 0.9 percent of payrolls and 0.7 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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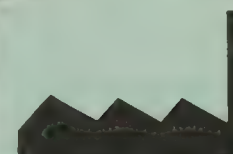








# 1967 CENSUS OF MANUFACTURES



MC67(P)-27A-1

## INDUSTRY SERIES

preliminary  
report

### Newspapers

SIC Code 2711

The Newspapers; Publishing, Publishing and Printing Industry includes establishments primarily engaged in publishing newspapers, or in publishing and printing newspapers. These establishments carry on the various operations necessary for issuing newspapers, including the gathering of news and the preparation of editorials and advertisements, but may or may not perform their own printing. Commercial printing is frequently carried on by establishments engaged in publishing and printing newspapers, but even though the commercial printing may be of major importance, such establishments are included in this industry. For the purposes of the census of manufactures, the term "newspaper" includes those publications issued at regular frequencies which contain news of interest to the general

public. Establishments not engaged in publishing newspapers, but which print or lithograph newspapers for publishers, are classified in industry 2751 or industry 2752. News syndicates are classified in service industries (industry 7351.)

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of receipts of establishments classified in the Newspapers Industry amounted to \$5,894.2 million, an increase of 31 percent compared with 1963. Value added by manufacture at \$4,279.0 million in 1967 was 34 percent more than value added in 1963. Average

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)							
INDUSTRY 2711.--NEWSPAPERS														
1967 Census....	8,093	2,030	333.8	2,214.6	168.5	301.6	1,121.3	4,279.0	1,616.4	5,894.2	251.5	165.3	97	100
1966 ASM <sup>1</sup> .....	(NA)	(NA)	333.5	2,121.2	167.6	313.5	1,091.4	4,012.2	1,508.8	5,520.2	227.8	148.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	327.7	2,006.4	167.6	303.8	1,043.6	3,731.7	1,423.6	5,156.1	170.0	113.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	317.9	1,901.1	166.3	319.9	997.8	3,460.8	1,359.2	4,820.4	121.6	120.4	(NA)	(NA)
1963 Census....	8,331	1,865	306.4	1,784.6	160.1	294.5	935.2	3,201.9	1,281.1	4,483.6	135.2	115.3	96	100
1962 ASM <sup>1</sup> .....	(NA)	(NA)	310.7	1,761.0	163.2	297.1	929.5	3,051.6	1,274.3	4,319.5	123.9	109.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	308.5	1,712.1	160.7	297.7	900.0	2,939.5	1,248.9	4,183.0	134.5	111.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	307.4	1,673.9	159.9	299.6	882.9	2,924.5	1,212.6	4,136.6	122.8	123.7	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	300.9	1,601.3	158.1	292.3	841.1	2,776.2	1,172.3	3,946.6	147.6	131.6	(NA)	(NA)
1958 Census <sup>2</sup> ....	8,279	1,736	295.6	1,499.9	154.7	278.0	779.0	2,528.8	1,112.4	3,628.0	148.2	131.8	96	100

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

employment in the industry showed an increase of 9 percent from 1963 to a total of 333.8 thousand employees in 1967.

Of the \$5,894.2 million total value of receipts of establishments classified as newspapers, \$194.3 million were products primary to other industries; and \$49.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 97 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 96 percent in 1963.

The total value of receipts for newspapers by all producers in 1967 was \$5,664.4 million of

which approximately 100 percent, were received by plants classified in industry 2711, Newspapers, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 100 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



## 1967 CENSUS OF MANUFACTURES

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TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2711.--NEWSPAPERS													
United States, total.....	8,093	2,030	333.8	2,214.6	168.5	301.6	1,121.3	4,279.0	1,616.4	5,894.2	251.5	306.4	3,201.9
New England.....	385	140	24.5	165.2	11.9	22.0	80.8	298.9	94.8	393.5	12.9	23.1	227.5
Maine.....	47	14	1.7	10.0	1.0	1.7	5.2	18.2	4.3	22.4	0.6	1.6	14.7
New Hampshire.....	38	16	1.2	7.3	0.7	1.2	3.9	12.9	2.4	15.4	0.3	1.2	9.4
Vermont.....	20	9	0.6	3.6	0.4	0.7	1.8	6.6	1.4	7.9	(D)	0.6	5.6
Massachusetts.....	185	58	13.6	95.6	6.5	12.2	46.1	173.9	58.6	232.3	6.6	13.0	131.1
Rhode Island.....	22	8	1.8	13.1	0.9	1.6	6.4	22.5	7.7	30.2	(D)	1.6	16.5
Connecticut.....	73	35	5.6	35.6	2.5	4.6	17.3	64.8	20.4	85.2	3.1	5.1	50.3
Middle Atlantic.....	1,047	328	67.7	493.7	35.3	61.4	258.5	895.6	367.5	1,262.4	47.9	62.6	684.3
New York.....	510	129	35.0	269.9	18.9	31.8	145.4	471.5	214.3	685.7	18.3	32.9	374.2
New Jersey.....	199	71	10.8	72.5	5.0	9.0	35.2	163.4	50.0	213.2	17.1	9.5	107.3
Pennsylvania.....	338	128	21.9	151.3	11.3	20.7	77.9	260.8	103.1	363.6	12.5	20.3	202.8
East North Central....	1,583	452	69.4	471.1	34.6	64.3	245.3	937.4	354.6	1,291.8	45.7	63.1	686.9
Ohio.....	329	124	18.9	133.8	9.8	19.1	72.5	270.3	100.1	370.4	11.8	16.2	184.2
Indiana.....	253	74	9.4	59.4	4.8	9.0	32.1	112.2	35.3	147.5	4.6	8.6	86.5
Illinois.....	452	122	21.2	144.3	10.9	19.6	78.5	291.5	122.5	414.0	14.0	19.5	208.2
Michigan.....	305	80	11.9	87.5	5.5	10.2	40.5	178.5	62.4	240.9	8.9	11.3	140.3
Wisconsin.....	244	52	8.0	46.1	3.5	6.4	21.7	84.9	34.2	119.1	6.4	7.4	67.7
West North Central....	1,473	226	29.4	178.7	16.1	28.7	95.2	343.0	121.9	465.0	26.7	28.2	273.6
Minnesota.....	281	43	7.0	43.6	3.4	5.7	20.7	83.4	28.6	112.0	5.2	6.5	65.1
Iowa.....	303	52	5.8	32.8	3.2	5.7	17.2	63.7	17.6	81.4	5.2	6.0	55.1
Missouri.....	296	53	8.0	54.6	4.5	8.2	31.1	103.5	47.7	151.2	12.1	7.6	81.4
North Dakota.....	73	12	1.2	6.4	0.7	1.3	3.7	11.7	2.6	14.2	0.5	1.0	8.9
South Dakota.....	113	9	0.9	4.6	0.6	1.1	2.8	9.7	2.5	12.1	0.3	1.2	9.8
Nebraska.....	171	19	3.0	17.1	1.8	3.2	9.1	34.9	11.8	46.8	2.0	2.6	26.5
Kansas.....	236	38	3.5	19.5	1.9	3.5	10.4	36.1	11.2	47.3	1.7	3.3	26.8
South Atlantic.....	935	252	43.2	267.2	21.3	37.8	125.6	532.5	211.3	743.9	40.5	38.8	385.0
Maryland.....	70	20	4.7	33.2	2.2	3.9	15.7	60.8	23.9	84.7	1.9	4.3	43.0
Virginia.....	120	38	5.3	31.4	2.7	4.8	14.7	56.6	20.6	77.2	1.9	4.8	46.7
West Virginia.....	89	21	2.6	13.5	1.5	2.8	7.4	24.9	8.1	32.9	3.2	2.3	19.2
North Carolina.....	163	56	5.9	34.1	3.2	6.0	17.3	62.7	20.9	83.6	3.7	5.2	45.1
South Carolina.....	75	17	2.4	14.2	1.2	2.2	6.1	51.1	18.6	69.7	5.1	(D)	(D)
Georgia.....	173	32	4.6	26.7	2.5	4.7	14.6	55.8	23.8	79.6	2.5	4.3	44.2
Florida.....	208	59	12.0	69.7	5.0	9.1	28.1	140.5	55.8	196.3	18.6	10.2	101.1
East South Central....	474	87	13.2	79.4	6.8	12.2	38.8	154.3	53.9	208.2	11.9	12.0	118.5
Kentucky.....	150	22	3.2	21.0	1.6	3.0	9.7	37.4	15.7	53.2	2.4	3.0	29.4
Tennessee.....	123	27	5.5	32.2	2.7	4.7	16.3	59.2	20.2	79.4	6.7	4.5	45.3
Alabama.....	99	23	3.0	18.2	1.5	2.8	9.0	41.0	13.2	54.2	1.3	2.9	31.4
Mississippi.....	102	15	1.6	8.0	0.9	1.6	3.8	16.7	4.8	21.4	1.6	1.5	12.5
West South Central....	931	172	25.8	144.4	13.6	24.3	74.4	295.7	118.2	413.7	30.8	23.0	222.2
Arkansas.....	112	23	2.2	10.8	1.3	2.5	6.0	21.1	6.9	28.0	(D)	2.1	15.7
Louisiana.....	108	20	3.5	20.5	1.9	3.5	11.6	48.8	19.3	68.0	(D)	3.2	36.0
Oklahoma.....	187	31	4.5	23.9	2.5	4.4	12.6	46.2	17.1	63.3	2.2	3.6	34.0
Texas.....	524	98	15.7	89.2	7.8	13.9	44.2	179.7	74.9	254.5	17.8	14.1	136.5
Mountain.....	458	98	13.8	82.8	7.0	12.7	44.3	159.0	56.7	215.7	5.9	12.4	128.0
Montana.....	74	10	1.3	7.5	0.7	1.2	4.3	13.9	2.9	16.8	0.2	1.2	9.7
Idaho.....	63	10	1.2	6.4	0.7	1.2	3.9	11.8	3.0	14.9	1.0	1.0	9.7
Wyoming.....	35	11	0.5	2.9	0.3	0.5	1.6	5.1	1.1	6.3	0.6	0.5	4.7
Colorado.....	116	25	4.4	28.9	2.2	4.0	15.7	44.9	22.0	66.9	2.5	3.9	36.0
New Mexico.....	43	13	1.1	6.2	0.6	1.0	3.1	12.7	3.1	15.7	0.4	1.0	10.5
Arizona.....	62	15	2.8	16.2	1.2	2.3	7.4	35.6	12.0	47.6	0.5	2.6	31.3
Utah.....	36	11	1.3	8.1	0.6	1.1	4.2	20.6	8.2	28.8	0.6	1.2	16.9
Nevada.....	29	7	1.2	6.7	0.7	1.3	4.2	14.3	4.3	18.6	0.1	0.9	9.2
Pacific.....	807	275	46.7	332.2	22.0	38.2	158.4	662.6	237.5	900.1	28.9	43.2	475.7
Washington.....	148	30	5.8	40.6	2.8	4.7	20.3	73.5	23.5	96.9	4.9	5.3	56.2
Oregon.....	110	28	3.3	20.1	1.6	2.8	9.2	40.5	15.2	55.7	1.9	3.3	32.1
California.....	516	207	36.0	261.4	16.8	29.2	123.6	526.1	193.0	719.1	21.0	33.3	372.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Type of publication	1967		1963	
		Aggregate average circulation per issue <sup>1</sup> (1,000)	Total receipts (million dollars)	Aggregate average circulation per issue <sup>1</sup> (1,000)	Total receipts (million dollars)
2711- --	NEWSPAPERS, TOTAL.....	(X)	5,664.4	(X)	4,254.7
	Total receipts for daily and Sunday newspapers <sup>2</sup> .....	(X)	5,060.8	(X)	3,792.0
27111 --	Daily and Sunday newspapers: receipts from subscriptions and sales.....	(X)	1,337.1	(X)	1,064.4
27111 01	Morning (no Sunday editions).....	3,491	78.6	2,602	43.2
27111 11	Evening (no Sunday editions).....	14,552	225.9	13,971	180.8
27111 22	Morning and Sunday: Morning editions.....	13,909	350.0	13,897	262.6
	Sunday editions.....	18,077		17,766	
27111 32	Evening and Sunday: Evening editions.....	14,489	278.5	14,224	266.9
	Sunday editions.....	17,860		18,200	
27111 42	Morning and evening (no Sunday editions): Morning editions.....	219	12.0	313	10.0
	Evening editions.....	369		404	
27111 52	Morning, evening, and Sunday: Morning editions.....	10,606	378.1	9,730	300.9
	Evening editions.....	9,400		8,598	
	Sunday editions.....	16,447		15,674	
27111 00	Daily and Sunday newspapers: receipts from subscriptions and sales n.s.k.	(X)	14.0	(X)	(X)
27112 --	Daily and Sunday newspapers: receipts from advertising.....	(X)	3,723.7	(X)	2,727.5
27112 01	Morning (no Sunday editions).....	(X)	134.3	(X)	81.1
27112 11	Evening (no Sunday editions).....	(X)	687.0	(X)	500.2
27112 22	Morning and Sunday.....	(X)	970.0	(X)	628.2
27112 32	Evening and Sunday.....	(X)	810.1	(X)	672.9
27112 42	Morning and evening (no Sunday editions).....	(X)	28.3	(X)	26.6
27112 52	Morning, evening, and Sunday.....	(X)	1,070.0	(X)	818.5
27112 00	Daily and Sunday newspapers: receipts from advertising, n.s.k.....	(X)	24.0	(X)	(X)
	Total receipts for weekly and other newspapers.....	(X)	313.5	(X)	378.9
27113 --	Weekly and other newspapers: receipts from subscriptions and sales.....	(X)	477.1	(X)	82.9
27113 62	Weekly newspapers (including those issued on Sunday only).....	(3)	465.9	(3)	69.6
27113 98	Other newspapers (including those issued more frequently than once a week but less than 4 times a week, also those issued less frequently than once a week).....	(3)	411.2	(3)	13.3
27114 --	Weekly and other newspapers: receipts from advertising.....	(X)	4236.4	(X)	296.0
27114 62	Weekly newspapers (including those issued on Sunday only).....	(X)	4177.1	(X)	218.7
27114 98	Other newspapers (including those issued more frequently than once a week but less than 4 times a week, also those issued less frequently than once a week).....	(X)	459.3	(X)	77.3
27110 00	Newspapers not specified by frequency and receipts undistributed between subscriptions and sales and advertising (For companies with 10 or more employees. See Note.).....	(X)	4112.7	(X)	83.9
27110 02	Newspapers not specified by frequency and receipts undistributed between subscriptions and sales and advertising. (For companies with less than 10 employees. See Note.).....	(X)	4177.4	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(X) Not applicable.

<sup>1</sup>Includes paid, free, bulk, etc. The term "issue" has been defined to mean the sum of all "editions" published on a given day, in the case of the establishment publishing newspapers on a combined frequency of issue basis (morning and Sunday, evening and Sunday, etc.). Separate average circulation figures were figured for the morning editions, evening editions, and Sunday editions.

<sup>2</sup>Includes all daily and Sunday newspapers published in the United States whether in English or foreign languages. (See text for a more complete description of what constitutes a newspaper in the census of manufactures.)

<sup>3</sup>Circulation data for weekly and other newspapers is not shown because this information was not reported by many small newspapers.

<sup>4</sup>In 1967 establishments with less than 10 employees were not required to file a report specifying their source of receipts but were required to furnish that information in 1963. Thus a substantial portion of product code 2711002 would be included in these codes.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2711.--NEWSPAPERS					
	Materials and supplies, total.....		(X)	1,482.7	(X)	1,162.2
262111	Newsprint.....	1,000 Short tons.	7,947.5	1,107.8	6,616.3	889.3
262131	Coated papers.....	...do.....	44.8	8.9	90.1	22.8
262101	All other paper.....	...do.....	47.4	17.1		
289301	Printing inks, complete formulations.....	million lbs.....	328.9	25.6	257.1	19.9
976000	Materials, containers, supplies, n.s.k.....		(X)	163.0	(X)	103.2
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	160.3	(X)	127.0
289301	Consumption of printing inks, complete formulations, produced and consumed in this industry.....	million lbs.....	76.7	(X)	63.1	(X)

(X) Not applicable.

### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2711, these small establishments accounted for approximately 3 percent of payrolls and 5 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

OFFICIAL BUSINESS

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE





# 1967 CENSUS OF MANUFACTURES



MC67(P)-27A-2

## INDUSTRY SERIES

### Periodicals

SIC Code 2721

preliminary  
report

The Periodicals: Publishing, Publishing and Printing Industry includes establishments primarily engaged in publishing periodicals, or in preparing, publishing, and printing periodicals. These establishments carry on the various operations necessary for issuing periodicals, but may or may not perform their own printing. Establishments not engaged in publishing periodicals, but which print or lithograph periodicals for publishers are classified in industry 2751 or industry 2752.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Periodicals Industry amounted to \$2,962.0 million, an increase of 29 percent compared with 1963. Value added by manufacture at \$1,816.4 million in 1967 was 35 percent more than value added in 1963. Average employment in the industry showed an increase of 12 percent from 1963 to a total of 76.1 thousand employees in 1967.

Of the \$2,962.0 million total value of shipments and other receipts of establishments classified as periodicals, \$295.9 million were products primary to other industries; and \$166.9 million were receipts for miscellaneous activities. The

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2721.--PERIODICALS													
1967 Census....	2,510	453	76.1	613.7	14.5	24.9	80.1	1,816.4	1,147.8	2,962.0	46.5	164.7	89	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	71.6	547.9	14.0	26.5	78.3	1,705.8	1,028.0	2,717.9	34.4	175.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	70.0	510.0	14.0	26.5	79.1	1,602.8	1,034.2	2,625.6	22.8	148.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	67.3	489.5	12.2	22.6	65.7	1,426.4	1,011.6	2,464.4	*37.6	138.1	(NA)	(NA)
1963 Census....	2,630	402	67.7	461.1	12.3	22.1	65.6	1,349.0	958.1	2,295.7	33.8	131.4	89	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	69.6	485.9	12.1	21.6	64.8	1,336.5	906.1	2,198.5	29.2	113.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	68.2	467.2	11.8	21.3	62.7	1,284.2	936.0	2,181.1	24.5	104.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	67.7	447.6	12.2	22.4	63.3	1,211.4	922.8	2,132.6	*45.8	109.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	67.4	419.3	12.4	22.4	62.0	1,153.9	833.0	1,981.2	*43.1	93.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	2,332	390	66.7	386.7	11.7	21.2	56.8	974.5	764.7	1,729.5	35.1	94.3	93	97

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.  
(NA) Not available.  
<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.  
<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

industry shipments of primary products represented 89 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was also 89 percent in 1963.

The total value of periodicals publishing receipts by all publishers in 1967 was \$2,613.1 million of which \$2,499.2 million, or 96 percent, were received by plants classified in industry 2721, Periodicals, while the remainder was received by plants classified in other industries.

This percent, called the coverage ratio, was also 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
INDUSTRY 2721.--PERIODICALS													
United States, total.....	2,510	453	76.1	613.7	14.5	24.9	80.1	1,816.4	1,147.8	2,962.0	46.5	67.7	1,349.0
New England.....	148	17	2.5	17.0	0.3	0.4	1.4	35.4	57.8	94.4	0.9	2.3	26.8
Massachusetts.....	81	8	0.8	5.1	0.2	0.4	1.1	13.7	6.1	19.8	0.1	0.6	9.8
Middle Atlantic.....	780	169	41.4	359.9	5.6	9.9	31.7	1,167.1	783.1	1,944.6	21.4	36.6	915.4
New York.....	591	131	33.7	305.0	2.7	4.2	15.2	961.4	668.5	1,624.3	18.2	29.1	766.7
New Jersey.....	87	16	1.3	9.8	0.3	0.4	0.9	28.5	18.8	47.2	0.3	0.8	14.9
Pennsylvania.....	102	22	6.4	45.1	2.7	5.3	15.7	177.2	95.9	273.1	2.8	6.7	133.8
East North Central....	492	122	12.4	96.1	2.5	4.4	13.8	243.9	120.5	364.2	9.6	10.6	165.3
Ohio.....	92	26	3.4	24.6	0.8	1.4	4.6	56.8	20.7	77.3	2.0	3.1	47.1
Indiana.....	39	9	0.9	5.5	0.5	0.9	2.8	12.0	4.9	17.0	(D)	0.4	4.4
Illinois.....	239	71	7.0	57.1	0.8	1.4	4.2	151.3	81.7	232.9	5.2	5.9	93.3
Michigan.....	64	8	0.4	3.8	0.1	0.1	0.5	11.6	6.2	17.9	(D)	0.6	9.8
Wisconsin.....	58	8	0.7	5.1	0.3	0.6	1.6	12.1	6.9	19.0	(D)	0.7	10.7
West North Central....	200	39	7.2	49.3	3.1	6.0	20.6	133.2	55.6	190.9	3.4	6.9	86.8
Missouri.....	70	22	3.2	19.8	1.5	2.8	9.3	44.8	21.3	68.6	(D)	2.6	25.4
Kansas.....	23	2	0.3	1.4	0.1	0.1	0.3	3.6	3.1	6.6	(Z)	(D)	(D)
South Atlantic.....	265	32	5.4	43.9	0.6	0.7	2.2	114.3	66.7	180.6	9.6	4.8	75.1
District of Columbia	73	16	3.8	32.3	0.1	0.1	0.4	82.1	50.7	132.5	8.9	3.3	57.2
North Carolina.....	29	3	0.2	1.0	0.1	0.2	0.4	2.5	1.0	3.4	0.2	0.1	1.4
Georgia.....	34	6	0.4	3.5	0.1	0.2	0.6	8.7	2.3	10.9	0.1	0.4	4.6
Florida.....	71	1	0.2	1.7	0.1	0.1	0.3	5.1	2.3	7.4	(Z)	0.2	3.0
East South Central....	77	15	2.2	11.4	0.7	1.2	2.6	23.3	15.0	39.4	0.7	1.9	15.7
Kentucky.....	21	5	0.2	1.1	0.1	0.2	0.3	2.2	1.3	3.5	(D)	0.2	1.5
Tennessee.....	38	9	1.9	9.9	0.6	1.0	2.2	20.0	13.2	34.3	0.7	1.5	13.2
West South Central....	168	13	1.1	7.8	0.5	0.8	2.2	18.0	9.1	27.0	0.2	1.0	15.1
Texas.....	107	7	0.7	4.3	0.3	0.5	1.2	9.7	6.5	16.2	0.1	0.7	8.9
Mountain.....	68	8	1.0	6.0	0.3	0.4	1.9	19.0	5.6	24.5	0.2	1.0	13.3
Colorado.....	23	4	0.6	4.6	0.2	0.3	1.5	15.3	4.1	19.3	0.1	0.7	10.1
Pacific.....	312	38	3.1	22.4	0.8	1.0	3.8	62.2	34.2	96.4	0.5	2.5	35.4
Oregon.....	21	3	0.1	0.8	0.1	0.1	0.2	2.3	0.6	2.9	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967		1963	
		Aggregate circulation per issue (1,000)	Value of receipts (million dollars)	Aggregate circulation per issue (1,000)	Value of receipts (million dollars)
2721- --	PERIODICALS, TOTAL.....	(X)	2,613.1	(X)	2,035.5
27211 --	Farm periodicals: Receipts from subscriptions and sales.....	11,968	11.3	14,305	8.5
27211 12	General.....	10,072	9.2	12,087	6.6
27211 16	Specialized.....	1,896	2.1	2,218	1.8
27212 --	Farm periodicals: Receipts from advertising.....	(X)	45.2	(X)	45.6
27212 11	General.....	(X)	31.4	(X)	36.5
27212 15	Specialized.....	(X)	13.8	(X)	9.0
27213 --	Specialized business and professional periodicals: Receipts from subscriptions and sales.....	(X)	1,521	(X)	122.7
27213 07	Industrial, engineering, and technical.....	<sup>e</sup> 12,952	44.9	12,113	30.9
27213 13	Merchandising.....	(NA)	23.8	(S)	20.3
27213 17	Professional, institutional and service.....	<sup>e</sup> 8,303	72.1	(S)	56.1
27213 00	Specialized business and professional: Receipts from subscription and sales, n.s.k.....	(X)	11.3	(X)	15.3
27214 --	Specialized business and professional periodicals: Receipts from advertising.....	(X)	511.4	(X)	412.7
27214 11	Industrial, engineering, and technical.....	(X)	307.9	(X)	216.5
27214 13	Merchandising.....	(X)	120.7	(X)	106.4
27214 15	Professional, institutional, and service.....	(X)	73.6	(X)	65.2
27214 00	Specialized business and professional: Receipts from advertising, n.s.k.....	(X)	9.2	(X)	24.5
27215 --	General periodicals: Receipts from subscriptions and sales.....	(X)	559.7	(X)	456.7
27215 14	Comics.....	15,178	8.5	27,594	10.9
	Women and home services:				
27215 43	Subscription sales.....	42,116	63.4	41,357	59.7
27215 45	Single copy sales.....	32,114	53.8	31,216	52.6
	General interest and entertainment:				
27215 53	Subscription sales.....	90,955	231.8	66,634	181.0
27215 55	Single copy sales.....	32,525	120.2	35,867	98.1
	General news:				
27215 63	Subscription sales.....	8,038	47.6	6,021	29.1
27215 65	Single copy sales.....	1,617	10.8	1,354	5.9
27215 74	Business news: Subscription sales and single copy sales.....	1,393	15.1	(S)	12.8
27215 00	General: Receipts from subscriptions and sales, n.s.k.....	(X)	8.5	(X)	6.6
27216 --	General periodicals: Receipts from advertising.....	(X)	884.6	(X)	710.6
27216 13	Comics.....	(X)	0.4	(X)	0.5
27216 43	Women and home services.....	(X)	250.1	(X)	203.7
27216 53	General interest and entertainment.....	(X)	457.3	(X)	380.2
27216 63	General news.....	(X)	145.8	(X)	105.8
27216 73	Business news.....	(X)	24.9	(X)	15.2
27216 00	General: Receipts from advertising, n.s.k.....	(X)	6.1	(X)	5.2
27217 --	Other periodicals: Receipts from subscriptions and sales and advertising..	(X)	287.1	(X)	230.2
	Subscription and single copy sales:				
27217 03	Religious.....	57,723	70.7	58,595	65.7
27217 05	Magazine and comic supplements for Sunday newspapers.....	24,912	21.0	34,325	26.0
	Periodicals, n.e.c.:				
27217 07	Subscription sales.....	<sup>e</sup> 38,048	71.6	39,812	53.6
27217 08	Single copy sales.....	<sup>e</sup> 6,897	14.1	9,211	7.9
	Advertising receipts:				
27217 33	Religious.....	(X)	11.2	(X)	6.2
27217 35	Magazine and comic supplements for Sunday newspapers.....	(X)	47.5	(X)	41.3
27217 37	Periodicals, n.e.c.....	(X)	39.5	(X)	25.1
27217 00	Other periodicals: Receipts from subscriptions and sales and advertising advertising, n.s.k.....	(X)	11.5	(X)	4.3
27210 00	Periodicals, n.s.k. (For companies with 10 or more employees. See Note.)..	(X)	70.6	(X)	48.5
27210 02	Periodicals, n.s.k. (For companies with less than 10 employees. See Note.)..	(X)	91.1	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2721.--PERIODICALS					
	Materials and supplies, total.....		1,488.0	490.4	1,230.5	358.9
262111	Newsprint.....	1,000 short tons.	132.0	21.1	159.9	23.3
262131	Coated paper, all types.....	...do.....	1,158.1	286.2	882.8	190.8
262102	Uncoated papers.....	...do.....	144.8	33.1	138.6	31.0
262150	Bristol, cover, text, and other specialty papers uncoated.....	...do.....	(NA)	3.7	22.3	5.7
	Printing inks:					
289303	Letterpress, including news.....	Million pounds...	47.9	18.0	25.1	13.1
289304	Lithographic.....	...do.....				
289309	Other, including gravure, flexographic, and screen process.....	...do.....				
976000	Materials, containers, supplies, n.s.k.....		(X)	61.9	(X)	39.8
970099	All other materials, containers and supplies consumed including ink, metals, type, paper used for wrapping printed products, etc.....		(X)	66.4	(X)	55.2
289301	Consumption of printing inks, complete formulations, produced and consumed in this industry.....	Million pounds...	5.2	(X)	1.8	(X)

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2721, these small establishments accounted for approximately 3 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

OFFICIAL BUSINESS

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE



# 1967 CENSUS OF MANUFACTURES



MC67(P)-27A-3

## INDUSTRY SERIES

### Book publishing

SIC Code 2731

### preliminary report

The Books: Publishing, Publishing and Printing Industry includes establishments primarily engaged in publishing only, or in publishing and printing books and pamphlets. Establishments primarily engaged in printing or in printing and binding (but not publishing) books and pamphlets are classified in industry 2732, Book Printing.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Book Publishing Industry amounted to \$2,070.3 million, an increase of 35 percent

compared with 1963. Value added by manufacture at \$1,397.5 million in 1967 was 40 percent more than value added in 1963. Average employment in the industry showed an increase of 10 percent from 1963 to a total of 51.4 thousand employees in 1967.

Of the \$2,070.3 million total value of shipments and other receipts of establishments classified in book publishing, \$151.9 million were products primary to other industries; and \$66.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2731.--BOOK PUBLISHING														
1967 Census....	1,024	284	51.4	386.4	12.3	24.5	81.2	1,397.5	759.2	2,070.3	57.0	567.1	92	87
1966 ASM <sup>1</sup> .....	(NA)	(NA)	54.0	359.8	12.2	23.6	61.0	1,325.7	749.8	1,996.3	47.9	514.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	50.4	322.5	11.5	22.7	55.9	1,115.1	672.1	1,767.1	29.6	418.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	53.1	330.9	14.5	27.6	71.9	1,099.8	655.4	1,728.6	*28.7	405.9	(NA)	(NA)
1963 Census....	993	256	46.8	280.7	11.8	23.4	59.5	995.7	582.3	1,534.6	25.4	362.4	93	88
1962 ASM <sup>1</sup> .....	(NA)	(NA)	47.0	277.4	12.1	28.0	61.9	953.9	581.0	1,527.8	*25.2	279.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	43.9	249.0	11.8	27.7	58.7	882.4	525.5	1,382.3	16.0	262.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	42.4	233.3	12.5	27.6	57.6	834.1	497.9	1,303.3	17.0	245.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	39.9	211.2	11.8	24.6	53.8	721.2	450.6	1,148.7	10.1	223.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	903	233	38.5	191.9	11.0	21.1	44.5	616.2	413.3	1,033.1	13.1	204.8	92	90

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of Books shipped by all producers in 1967 was \$2,125.1 million of which \$1,852.2 million, or 87 percent, were shipped by plants classified in industry 2731, Book Publishing, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 88 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2731.--BOOK PUBLISHING												
United States, total.....	1,024	284	51.4	386.4	12.3	24.5	81.2	1,397.5	759.2	2,070.3	57.0	46.8	995.7
New England.....	72	15	3.1	21.5	0.4	0.6	1.8	118.0	55.6	167.6	6.8	2.1	83.6
Massachusetts.....	42	12	2.8	20.1	0.2	0.4	1.0	114.7	54.0	162.6	6.7	1.9	80.0
Connecticut.....	14	1	0.1	0.8	0.1	0.2	0.4	2.0	1.1	3.1	(2)	(D)	(D)
Middle Atlantic.....	431	138	25.5	203.9	2.8	6.6	27.4	795.3	450.0	1,184.8	21.0	24.7	554.8
New York.....	353	112	22.4	182.1	1.9	4.9	22.0	722.0	405.8	1,071.3	19.7	19.2	466.3
New Jersey.....	33	12	1.8	12.3	0.4	0.6	1.8	49.3	26.3	72.4	1.0	4.0	62.6
Pennsylvania.....	45	14	1.3	9.5	0.6	1.1	3.7	24.0	17.9	41.1	0.2	1.4	25.9
East North Central....	204	71	14.6	108.4	5.0	9.8	30.7	369.1	188.3	541.0	24.2	12.8	274.1
Ohio.....	22	8	2.9	20.6	1.3	2.4	7.3	63.3	24.4	84.7	2.6	1.8	29.0
Illinois.....	111	40	6.9	53.0	1.5	3.0	7.9	233.7	111.9	334.0	17.3	7.1	193.9
Michigan.....	33	8	0.7	3.9	0.2	0.4	1.1	11.9	11.5	22.6	0.2	(D)	(D)
West North Central....	53	14	2.8	20.2	1.8	3.1	9.8	39.9	20.9	59.4	1.0	3.1	37.4
South Atlantic.....	76	12	1.3	8.1	0.5	1.0	3.0	17.6	11.3	28.8	(D)	1.0	11.2
Maryland.....	15	4	0.3	2.0	0.1	0.1	0.6	3.0	2.1	5.2	(D)	0.1	2.2
District of Columbia	23	4	0.5	3.0	0.2	0.5	1.5	5.9	4.5	10.4	(D)	0.4	4.2
East South Central....	28	9	1.6	6.8	1.1	2.1	4.5	16.3	12.5	27.8	1.5	0.8	7.5
West South Central....	32	5	0.3	2.1	0.1	0.2	0.4	5.8	3.4	9.2	(D)	0.5	4.6
West.....	128	20	2.3	15.4	0.7	1.1	3.6	35.5	17.3	51.8	1.6	1.8	22.6
California.....	98	19	1.8	12.5	0.6	1.1	3.4	32.3	14.7	45.6	(D)	1.6	20.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Receipts by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total receipts including interplant transfers			
		1967		1963	
		Number of copies sold (million)	Receipts (million dollars)	Number of copies sold (million)	Receipts (million dollars)
2731- --	BOOK PUBLISHING, TOTAL.....	(X)	2,125.1	(X)	1,547.8
27311 --	Textbooks, including teachers' editions.....	(X)	743.5	(X)	471.1
	Elementary (grades K to 8):				
27311 11	Hardbound.....	85.1	180.6	54.9	112.7
27311 12	Paperbound.....	30.0	24.3	38.5	21.7
	High school (grades 9 to 12):				
27311 13	Hardbound.....	37.0	125.0	32.9	97.8
27311 14	Paperbound.....	11.6	14.9	9.4	8.8
	College (grades 13 and over, including private business and secretarial school and post high school vocational schools, institutes and training):				
27311 15	Hardbound.....	41.6	228.9	24.2	131.7
27311 16	Paperbound.....	16.7	32.7	9.3	14.9
27311 17	Work books, all levels paperbound.....	132.9	93.9	106.3	61.1
27311 18	Standardized tests, including both tests and answer sheets, objective tests, manuals, etc. (all grades) paperbound.....	188.0	28.5	137.3	19.3
27311 00	Text books, n.s.k.....	(X)	14.7	(X)	3.1
27312 11	Subscription reference books, hardbound.....	31.3	190.8	35.7	207.3
27313 --	Technical, scientific and professional books.....	(X)	237.1	(X)	156.3
27313 11	Lawbooks (designed for the professions).....	8.4	74.1	6.5	57.4
27313 13	Medical books, including nursing and dental subjects (designed for the profession).....	5.1	38.4	4.1	24.1
27313 16	Business books (nonfiction books on business for adult readers in the profession).....	3.7	19.8	1.2	5.6
27313 19	Other technical, scientific and professional books.....	15.4	93.2	29.6	63.0
27313 00	Technical, scientific and professional books, n.s.k.....	(X)	11.6	(X)	6.2
27314 --	Religious books.....	(X)	108.2	(X)	81.1
27314 15	Bibles and testaments, hardbound and paperbound.....	10.2	35.8	15.3	26.4
27314 23	Hymnals and devotionals, including prayer books and missals, hardbound and paperbound.....	7.8	15.4	4.7	8.2
	Other religious books, including books of fiction or nonfiction dealing with religious subjects for adult and juvenile reading:				
27314 25	Hardbound.....	13.6	28.9	16.9	31.3
27314 27	Paperbound.....	23.2	15.2	22.5	12.6
27314 00	Religious books, n.s.k.....	(X)	12.9	(X)	2.6
27315 --	General books (trade, etc.).....	(X)	591.7	(X)	458.2
27315 13	Book club books, hardbound and paperbound.....	113.8	155.8	75.7	143.4
27315 31	Wholesaled paperbound books usually of digest size (4-1/4" X 6-1/2") and distributed 50 percent or more through magazine wholesalers <sup>2</sup> .....	201.1	67.7	241.4	60.5
	Adult trade books, books of fiction or nonfiction sold primarily through booksellers (retail and wholesale) at trade discounts:				
27315 41	Hardbound.....	48.4	136.5	40.2	108.5
27315 43	Paperbound.....	144.1	80.2	48.9	34.5
	Juvenile books (except toy books), books of fiction or nonfiction sold primarily through book dealers (retail and wholesale) at trade discounts:				
27315 61	\$1.00 and over retail hardbound and paperbound.....	62.1	102.4	55.1	72.7
27315 63	Under \$1.00 retail, hardbound and paperbound.....	144.3	35.1	120.5	31.3
27315 00	General books (trade, etc.), n.s.k.....	(X)	14.0	(X)	7.3
27316 --	Other books and pamphlets.....	(X)	178.7	(X)	154.8
	Other books:				
27316 11	Hardbound.....	22.9	86.2	(S)	84.4
	Paperbound.....	36.0	23.0	41.4	25.9
27316 14	Music.....	18.2	8.1	(NA)	(NA)
27316 16	Other.....	17.8	14.9	(NA)	(NA)

See footnotes at end of table.

TABLE 3. Quantity and Value of Receipts by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total receipts including interplant transfers			
		1967		1963	
		Number of copies sold (million)	Receipts (million dollars)	Number of copies sold (million)	Receipts (million dollars)
	BOOK PUBLISHING--Continued				
	Other books and pamphlets--Continued				
	Pamphlets:				
27316 41	Religious.....	69.9	2.1	(S)	5.0
27316 43	Music.....	10.3	3.9		
27316 45	Other.....	(S)	41.6	(S)	32.9
27316 00	Other books and pamphlets, n.s.k.....	(X)	21.9	(X)	6.6
27310 00	Books and pamphlets, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	38.9	(X)	18.9
27310 02	Books and pamphlets, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	36.2		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>Distributed 75 percent or more through magazine wholesalers in 1963.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2731.--BOOK PUBLISHING					
	Materials and supplies, total.....		(X)	250.9	(X)	196.8
262111	Newsprint.....	1,000 short tons..	95.4	15.6	28.8	5.6
262131	Coated paper, all types.....	do.....	155.1	53.2	158.9	45.0
262102	Uncoated papers.....	do.....	203.6	72.0	217.4	62.5
262150	Bristol, cover, text, and other specialty papers uncoated.....	do.....	49.0	15.8	28.4	10.2
289301	Printing inks.....	Million lbs.....	3.9	3.7	1.7	2.7
386151	Unexposed lithographic plates and metal for lithographic plates..		(X)	3.0	(X)	(X)
976000	Materials, containers, supplies, n.s.k.....		(X)	40.3	(X)	21.8
970099	All other materials, containers and supplies consumed including ink, metals, type, paper used for wrapping printed products, etc.....		(X)	47.3	(X)	49.2

n.s.k. Not specified by kind. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2731, these small establishments accounted for approximately 1 percent of payrolls and 3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

**POSTAGE AND FEES PAID  
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**OFFICIAL BUSINESS**

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-27A-4

## INDUSTRY SERIES

### Book printing

SIC Code 2732

preliminary  
report

The Book Printing Industry includes establishments primarily engaged in printing only or in printing and binding books and pamphlets, but not engaged in publishing. Establishments primarily engaged in publishing, or in publishing and printing books and pamphlets, are classified in industry 2731. Establishments engaged in both printing and binding books, but primarily binding books printed elsewhere, are classified in industry 2789.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

fied in the Book Printing Industry amounted to \$798.0 million, an increase of 46 percent compared with 1963. Value added by manufacture at \$517.1 million in 1967 was 44 percent more than value added in 1963. Average employment in the industry showed an increase of 26 percent from 1963 to a total of 45.4 thousand employees in 1967.

Of the \$798.0 million total value of shipments and other receipts of establishments classified as book printing, \$122.8 million were products primary to other industries; and \$13.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 78 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2732.--BOOK PRINTING													
1967 Census....	745	320	45.4	302.5	37.1	73.6	230.8	517.1	277.4	798.0	46.2	69.8	84	75
1966 ASM <sup>1</sup> .....	(NA)	(NA)	41.1	284.3	34.4	72.7	221.9	460.8	258.2	709.3	42.1	74.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	38.7	255.5	32.0	67.6	198.6	411.2	227.5	632.7	38.2	58.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	35.7	226.9	29.2	62.4	178.8	385.2	202.8	585.5	31.8	48.4	(NA)	(NA)
1963 Census.....	683	275	36.1	214.2	29.6	59.6	164.6	358.3	190.0	546.6	24.9	48.0	78	69
1962 ASM <sup>1</sup> .....	(NA)	(NA)	34.2	197.8	28.7	57.7	153.7	318.2	165.1	478.8	*19.5	49.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	33.0	189.2	27.9	57.5	148.2	322.7	165.2	483.8	*17.6	45.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	31.4	173.3	26.6	53.7	135.5	297.8	164.7	462.9	*16.6	43.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	29.3	160.4	24.7	49.9	125.5	260.2	143.4	395.0	*14.6	44.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	791	205	28.6	144.0	23.7	46.8	112.3	226.8	130.4	357.7	10.8	35.3	72	60

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

The total value of book printing receipts for all producers in 1967 was \$884.3 million of which \$662.1 million, or 75 percent, were received by plants classified in industry 2732, Book Printing, while the remainder was received by plants classified in other industries. This percent, called the coverage ratio, was 69 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

**TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963**

(Geographic data for this industry will not be published separately)



TABLE 3. Value of Receipts by All Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of receipts")

Product code	Product	Value of receipts including interplant transfers (million dollars)	
		1967	1963
2732- --	BOOK PRINTING, TOTAL.....	884.3	607.0
27321 --	Book and pamphlet printing and book binding (lithographic process).....	586.5	344.2
	Printing only:		
27321 31	Text books.....	45.5	75.8
27321 33	General books (book club books, wholesaled paperbound books usually of digest size, and adult trade books).....	16.6	
27321 35	Juvenile books.....	5.6	
27321 39	Other books, including subscription reference books; technical, scientific and professional books; and religious books.....	28.4	
	Printing and binding:		
27321 41	Text books.....	125.5	161.8
27321 43	General books (book club books, wholesaled paperbound books usually of digest size, and adult trade books).....	77.7	
27321 45	Juvenile books.....	13.7	
27321 49	Other books, including subscription reference books; technical, scientific and professional books; and religious books.....	105.6	
	Pamphlets (at least 5 but less than 49 pages, exclusive of the covers) excluding advertising circulars and pamphlets:		
	Lithographic:		
27321 51	Printing only.....	58.9	36.5
27321 55	Printing and binding.....	81.9	55.2
27321 00	Book and pamphlet printing and book binding (lithographic process), n.s.k.....	27.1	14.9
27322 --	Book and pamphlet printing and book binding (other than lithographic process).....	255.4	241.7
	Printing only:		
27322 31	Text books.....	14.2	26.2
27322 33	General books (book club books, wholesaled paperbound books usually of digest size, and adult trade books).....	5.6	
27322 35	Juvenile books.....	1.1	
27322 39	Other books, including subscription reference books; technical, scientific, and professional books; and religious books.....	8.7	
	Printing and binding:		
27322 41	Text books.....	30.0	165.4
27322 43	General books (book club books, wholesaled paperbound books usually of digest size, and adult trade books).....	57.2	
27322 45	Juvenile books.....	6.9	
27322 49	Other books, including subscription reference books; technical, scientific, and professional books; and religious books.....	56.9	
	Pamphlets (at least 5 but less than 49 pages, exclusive of the covers), excluding advertising circulars and pamphlets:		
	Other than lithographic:		
27322 51	Printing only.....	15.5	14.7
27322 55	Printing and binding.....	39.4	21.5
27322 00	Book and pamphlet printing and book binding (other than lithographic process) n.s.k.....	19.9	13.9
27320 00	Book printing, n.s.k. (For companies with 10 or more employees. See Note.).....	35.7	21.1
27320 02	Book printing, n.s.k. (For companies with less than 10 employees. See Note.).....	6.7	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2732.--BOOK PRINTING					
	Materials, containers, and supplies, total.....		(X)	230.0	(X)	155.6
262112	Newsprint.....		(X)	5.6	(X)	4.4
262131	Coated papers.....		(X)	25.9	173.9	61.4
262101	All other paper.....		(X)	69.0		
263105	Paperboard (exclude that used for shipping).....		(X)	7.1	(X)	5.4
	Printing inks:					
289303	Letterpress, including news.....	million lbs.....	(S)	5.7	8.8	8.4
289304	Lithographic.....	do.....	6.0	7.1		
289309	Other, including gravure, flexographic and screen process.....	do.....	(S)	1.3		
386151	Unexposed lithographic plates and metal for lithographic plates..		(X)	5.3	(NA)	(NA)
386101	Light sensitive films and papers.....		(X)	6.2	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies consumed; including metal type etc.....		(X)	69.2	(X)	53.6
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....		(X)	27.6	(X)	22.5

(NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or in the basis of a consistency review. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

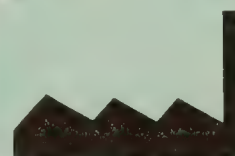
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-27A-5

## INDUSTRY SERIES

**preliminary  
report**

### Miscellaneous publishing

SIC Code 2741

The Miscellaneous Publishing Industry includes establishments primarily engaged in miscellaneous publishing activities, not elsewhere classified, whether or not engaged in printing. Establishments primarily engaged in offering financial, credit, or other business services, and which may publish directories as part of this service, are not included in this industry but are classified in Service Industries.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Miscellaneous Publishing Industry

amounted to \$593.5 million, an increase of 52.3 percent compared with 1963. Value added by manufacture at \$396.8 million in 1967 was 56.9 percent more than value added in 1963. Average employment in the industry showed an increase of 33.6 percent from 1963 to a total of 30.2 thousand employees in 1967.

Of the \$593.5 million total value of shipments and other receipts of establishments classified in the Miscellaneous Publishing Industry, \$46.7 million were products primary to other industries; and \$21.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2741.--MISCELLANEOUS PUBLISHING													
1967 Census....	1,497	205	30.2	192.1	14.0	23.7	74.1	396.8	193.0	593.5	8.7	40.0	92	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	24.3	156.3	11.2	20.4	58.0	321.2	176.9	495.2	*6.1	38.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	24.3	147.4	11.0	20.5	55.8	299.3	165.1	462.4	4.1	33.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	23.0	137.9	9.8	18.5	49.0	282.3	144.8	424.9	5.9	28.0	(NA)	(NA)
1963 Census....	1,374	177	22.6	130.4	9.8	18.7	48.8	252.9	137.1	389.6	7.1	27.2	92	84
1962 ASM <sup>1</sup> .....	(NA)	(NA)	20.6	117.0	9.4	16.0	43.6	239.8	125.9	363.6	*7.2	21.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	21.2	115.9	8.9	15.7	43.0	245.2	124.0	367.5	*5.3	21.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	20.3	108.5	9.4	15.7	42.1	227.6	118.5	345.0	*5.0	20.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	19.8	101.1	8.7	13.6	36.7	213.2	113.1	324.5	*19.0	20.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,104	163	19.3	91.8	6.5	12.0	28.6	199.2	109.0	307.9	6.0	21.0	89	87

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of miscellaneous publications shipped by all producers in 1967 was \$575.2 million of which \$526.5 million, or 92 percent, were shipped by plants classified in industry 2741, Miscellaneous Publishing, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 84 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2741.--MISCELLANEOUS PUBLISHING													
United States, total.....	1,497	205	30.2	192.1	14.0	23.7	74.1	396.8	193.0	593.5	8.7	22.6	252.9
New England.....	93	15	1.5	7.2	0.8	1.3	3.0	21.5	7.1	28.5	0.7	1.1	11.2
Vermont.....	7	3	0.1	0.7	0.1	0.2	0.4	0.8	0.4	1.2	(D)	(D)	(D)
Massachusetts.....	46	7	0.6	3.0	0.4	0.6	1.5	5.2	2.3	7.5	0.1	0.6	4.6
Middle Atlantic.....	499	68	10.7	71.9	3.0	4.6	17.7	136.3	53.8	200.0	3.2	8.4	102.4
New York.....	412	50	7.3	51.6	2.2	3.3	12.6	114.9	40.3	155.4	2.0	7.2	89.7
New Jersey.....	44	12	2.9	18.2	0.4	0.7	3.9	17.1	11.3	38.1	1.1	0.8	8.9
Pennsylvania.....	43	6	0.5	2.0	0.4	0.6	1.2	4.3	2.1	6.4	0.1	0.5	3.8
North Central.....	385	63	10.5	69.9	5.3	9.7	28.7	153.3	101.9	252.4	2.7	7.4	92.0
Illinois.....	96	27	5.3	42.3	2.3	4.1	15.0	98.8	60.5	158.4	0.9	4.2	67.9
South Atlantic.....	119	14	1.7	11.3	0.7	1.3	4.0	21.3	7.1	26.8	0.3	1.5	10.8
District of Columbia	20	3	0.5	4.2	0.1	0.1	0.4	7.2	3.3	10.3	0.1	0.4	4.3
East South Central....	58	4	0.4	1.9	0.2	0.3	0.7	3.7	2.1	5.9	0.1	0.5	4.0
West South Central....	82	9	0.9	4.1	0.6	1.0	2.4	8.5	3.1	11.2	0.2	0.8	5.5
West.....	251	32	4.5	25.8	3.5	5.6	17.6	52.2	17.8	68.6	1.4	2.9	27.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Value of Receipts by all Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of receipts")

Product code	Product	Value of receipts including interplant transfers (million dollars)	
		1967	1963
2741- --	MISCELLANEOUS PUBLISHING.....	575.2	413.4
27411 --	Catalogs and directories, publishing.....	202.9	133.0
27411 11	Directories.....	154.5	94.4
27411 21	Catalogs.....	42.6	31.4
27411 00	Catalogs and directories, n.s.k.....	5.8	7.2
27412 --	Business service publications.....	122.9	101.6
27412 13	Business service newsletters, excluding publications which are cumulated in looseleaf index form.	16.5	27.0
27412 15	Other business service publications, looseleaf and hardbound, including tax, credit, government regulations, cumulative indexes, etc.....	105.1	74.6
27412 00	Business service publications, n.s.k.....	1.3	-
27413 --	Other miscellaneous publishing.....	180.2	158.2
27413 11	Cards, other than greeting cards, including picture postcards, souvenir cards, etc.....	13.8	11.8
27413 21	Shopping news.....	26.4	18.1
27413 31	Sheet music (except music in book form).....	10.8	13.9
27413 65	Maps, hydrographic charts, atlases, gazetteers, and globe covers.....	54.5	35.2
27413 95	Racing forms.....	22.5	20.8
27413 96	Patterns (including clothing patterns).....	48.3	44.5
27413 98	Other miscellaneous publications (e.g., almanacs).....	3.9	13.9
27413 00	Other miscellaneous publishing, n.s.k.....	36.2	20.6
27410 00	Miscellaneous publishing, n.s.k. (For companies with 10 or more employees. See Note.).....	33.0	
27410 02	Miscellaneous publishing, n.s.k. (For companies with less than 10 employees. See Note.).....		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. n.s.k. Not specified by kind.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2741.--MISCELLANEOUS PUBLISHING					
	Materials, containers, and supplies, total.....		(X)	75.4	(X)	53.6
262111	Newsprint.....	1,000 short tons.	<sup>e</sup> 37.9	5.4	25.3	3.7
262131	Coated paper, all types.....	...do.....	<sup>e</sup> 17.6	6.8	12.6	4.1
262102	Uncoated paper (groundwood, book, bond, writing, ledger, and manifold).....	...do.....	23.3	9.0	21.2	7.7
262150	Bristol, cover, text, and other specialty paper uncoated.....	...do.....	<sup>e</sup> 6.6	2.6	3.1	1.2
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....		(X)	28.9	(X)	23.3
970099	All other materials and components, parts, containers, and supplies consumed.....		(X)	22.7	(X)	13.3

<sup>e</sup>From 10 to 30 percent of this figure was estimated. n.s.k. Not specified by kind. (X) Not applicable.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

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### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-27B-1

## INDUSTRY SERIES

### Commercial printing, except lithographic

SIC Code 2751

**preliminary  
report**

The Commercial Printing, Except Lithographic, Industry includes establishments primarily engaged in commercial or job printing, except lithographic. This industry includes general printing shops, as well as shops specializing in printing newspapers and periodicals for others, and those which specialize in gravure, rotogravure, and screen printing. Establishments primarily engaged in printing books, without publishing and greeting cards, are included in industries 2732 and 2771, respectively. Establishments primarily engaged in printing from lithographic plates are classified in industry 2752.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of receipts of establishments classified in the Commercial Printing, Except Lithographic, Industry amounted to \$3,238.9 million, an increase of 22 percent compared with 1963. Value added by manufacture at \$1,938.8 million in 1967 was 22 percent more than value added in 1963. Average employment in the industry showed an increase of 2 percent from 1963 to a total of 173.7 thousand employees in 1967.

Of the \$3,238.9 million total value receipts of establishments classified as commercial printing, except lithographic, \$446.6 million were products primary to other industries; and \$119.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 86 percent of the total manufactured

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2751.—COMMERCIAL PRINTING, EXCEPT LITHOGRAPHIC													
1967 Census....	12,100	1,436	173.7	1,176.6	141.3	271.2	874.2	1,938.8	1,315.3	3,238.9	144.1	270.8	86	82
1966 ASM <sup>1</sup> .....	(NA)	(NA)	185.3	1,206.6	145.9	286.8	890.8	1,913.7	1,316.5	3,202.3	122.0	283.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	181.6	1,132.5	141.8	276.7	832.7	1,761.1	1,204.4	2,951.6	108.1	242.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	171.1	1,057.7	135.0	263.0	792.1	1,655.6	1,159.2	2,797.2	82.4	242.1	(NA)	(NA)
1963 Census....	12,109	1,404	170.2	1,007.5	136.1	264.2	762.7	1,478.3	1,092.4	2,645.1	99.2	245.7	86	79
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 11 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was also 86 percent in 1963.

The total value of receipts for commercial printing, except lithographic, for all producers in 1967 was \$3,247.2 million of which \$2,673.2 million, or 82 percent, were shipped by plants classified in industry 2751, Commercial Printing Except Lithographic, while the remainder was shipped by plants classified in other industries.

This percent, called the coverage ratio, was 79 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



## 1967 CENSUS OF MANUFACTURES

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TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2751.--COMMERCIAL PRINTING, EXCEPT LITHOGRAPHIC												
United States, total.....	12,100	1,436	173.7	1,176.6	141.3	271.2	874.2	1,938.8	1,315.3	3,238.9	144.1	170.2	1,578.3
New England.....	861	114	12.3	78.7	10.4	19.8	59.6	127.9	79.8	207.4	10.8	13.5	113.5
Maine.....	58	2	0.4	2.1	0.3	0.5	1.3	4.4	3.2	7.6	0.1	0.4	2.8
Massachusetts.....	448	57	5.1	31.8	4.3	9.1	23.1	54.7	31.9	86.3	(D)	6.0	48.5
Rhode Island.....	81	14	1.1	7.7	0.9	2.0	5.8	11.7	10.2	22.0	(D)	0.8	5.5
Connecticut.....	184	33	4.2	27.5	3.5	6.7	21.7	43.6	25.9	69.3	2.9	5.0	47.1
Middle Atlantic.....	3,074	403	49.7	344.0	39.6	75.8	251.2	546.2	364.4	903.8	38.7	47.5	448.5
New York.....	1,847	249	25.5	177.0	21.0	39.8	129.3	307.7	195.8	500.3	20.3	24.0	243.6
New Jersey.....	508	68	8.6	63.1	7.2	14.2	50.0	97.0	61.1	157.6	3.9	7.6	68.9
Pennsylvania.....	719	86	15.7	103.8	11.4	21.8	71.9	141.4	107.5	245.8	14.6	15.9	135.9
East North Central...	2,554	328	51.6	378.9	42.2	82.7	287.7	617.1	420.2	1,033.2	45.8	51.8	513.0
Ohio.....	646	81	13.6	93.2	10.9	21.8	70.5	150.4	105.1	255.7	5.7	14.0	130.7
Indiana.....	271	31	4.1	25.9	3.4	6.9	19.5	48.6	32.4	80.7	3.7	3.9	36.0
Illinois.....	894	143	25.3	200.8	21.0	40.9	158.0	324.7	214.6	535.4	31.2	25.0	264.8
Michigan.....	471	46	4.4	29.1	3.7	7.1	20.9	50.8	31.4	82.5	2.5	4.1	39.8
Wisconsin.....	272	27	4.2	30.0	3.1	7.9	18.8	42.5	36.7	78.9	2.7	4.7	41.7
West North Central...	951	98	9.6	56.4	7.6	14.2	39.2	94.8	68.9	162.9	6.3	11.2	91.9
Missouri.....	302	36	3.5	21.6	2.8	5.4	15.8	34.9	27.8	62.4	1.6	3.8	32.4
North Dakota.....	25	2	0.1	0.7	0.1	0.2	0.4	1.2	0.6	1.9	0.1	0.2	1.2
South Atlantic.....	1,379	174	17.3	103.3	14.4	28.1	77.2	185.5	147.1	331.3	15.7	14.4	119.2
Delaware.....	20	5	0.3	2.0	0.3	0.6	1.5	3.5	1.8	5.4	0.1	0.2	1.5
Maryland.....	163	24	2.9	19.4	2.4	4.8	15.0	32.6	18.4	50.8	7.3	2.8	25.0
District of Columbia.....	79	12	2.2	15.1	1.8	3.5	12.2	29.0	20.8	49.7	0.4	1.8	17.8
Virginia.....	190	23	3.0	16.0	2.5	4.9	12.3	32.0	27.8	60.2	2.9	2.1	14.6
West Virginia.....	63	2	0.3	1.7	0.2	0.4	1.1	2.5	1.9	4.4	0.1	0.4	2.6
North Carolina.....	211	31	2.6	14.6	2.1	4.3	10.0	29.1	26.6	55.4	1.6	2.2	18.8
South Carolina.....	89	12	0.6	3.5	0.5	1.1	2.5	5.6	3.3	8.9	0.2	0.6	3.8
Georgia.....	200	28	2.4	15.2	2.0	3.9	11.0	25.2	30.9	55.4	1.8	2.0	17.5
Florida.....	364	37	2.9	15.8	2.4	4.6	11.5	26.0	15.4	41.1	1.1	2.3	17.5
East South Central...	503	62	8.2	52.4	7.0	13.4	42.2	85.3	54.1	139.3	7.6	7.5	64.8
Kentucky.....	108	17	3.9	27.2	3.4	6.3	22.8	41.1	19.8	60.7	2.1	3.3	28.4
Mississippi.....	80	6	0.5	2.7	0.4	0.8	1.8	4.7	2.9	7.7	0.2	0.5	3.4
West South Central...	944	81	7.1	41.7	5.6	10.9	29.1	74.5	51.0	125.2	4.3	7.4	60.6
Arkansas.....	68	9	0.8	4.9	0.6	1.2	3.1	8.0	4.8	12.8	0.4	0.8	6.0
Louisiana.....	130	13	1.0	6.1	0.8	1.5	4.0	10.6	5.7	16.3	0.4	1.1	7.9
Oklahoma.....	141	10	0.7	4.0	0.6	1.2	2.9	9.4	5.7	15.1	0.5	0.6	4.8
Texas.....	605	49	4.5	26.7	3.6	7.1	19.1	46.5	34.7	81.0	2.9	4.9	41.8
Mountain.....	347	33	2.7	16.1	2.2	4.0	11.9	25.2	16.8	41.8	1.2	2.3	20.8
Montana.....	19	3	0.2	1.0	0.1	0.3	0.7	1.6	1.2	2.8	0.1	0.1	1.1
Idaho.....	17	1	0.2	1.1	0.1	0.2	0.7	1.8	0.8	2.6	0.1	0.2	1.0
New Mexico.....	40	1	0.2	0.9	0.1	0.2	0.6	1.6	1.1	2.7	0.1	0.2	1.4
Utah.....	44	4	0.4	2.1	0.3	0.6	1.6	3.6	2.3	5.9	0.2	0.4	5.0
Nevada.....	17	1	0.1	0.5	0.1	0.1	0.3	1.1	0.5	1.6	(D)	(D)	(D)
Pacific.....	1,487	143	15.2	105.2	12.4	22.2	76.1	182.3	113.1	294.1	13.8	14.6	146.0
California.....	1,207	119	13.0	92.7	10.7	19.4	67.4	160.0	98.5	257.0	(D)	13.0	130.5
Alaska.....	11	1	0.1	0.4	0.1	0.1	0.4	0.8	0.7	1.5	0.1	(D)	(D)
Hawaii.....	22	3	0.3	1.3	0.2	0.4	0.9	2.1	1.6	3.8	0.1	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Value of Receipts by all Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of receipts")

Product code	Product	Value of receipts including interplant transfers (million dollars)	
		1967	1963
2751- --	COMMERCIAL PRINTING, EXCEPT LITHOGRAPHIC, TOTAL.....	3,247.2	2,711.4
27511 --	Magazine and periodical printing (letterpress).....	512.8	574.0
27511 15	Magazines and periodicals (excluding magazine and comic supplements for Sunday newspapers)....	458.8	530.9
27511 17	Magazine and comic supplements for Sunday newspapers.....	34.5	43.0
27511 00	Magazine and periodical printing (letterpress), n.s.k.....	19.5	-
27512 --	Labels and wrapper printing (letterpress).....	377.5	296.9
	Labels, custom and stock printed, including bordered, made of paper or foil (excluding labels made of fabric):		
27512 12	Flat, except pressure sensitive (including flexographic).....	127.7	118.8
27512 14	Rolls, except pressure sensitive (including flexographic).....	34.5	16.3
27512 17	Pressure sensitive.....	49.7	30.5
	Wrappers or wraps (except bags, envelopes, pouches, etc.):		
27512 31	Cellophane, flexographic.....	73.5	57.7
27512 33	Paper.....	22.3	19.4
	Other, including polyethylene:		
27512 39	Flexographic.....	51.2	38.4
27512 49	Letterpress.....	6.0	
27512 00	Labels and wrappers printing (letterpress), not reported separately.....	12.6	15.6
27513 --	Catalogs and directories printing (letterpress).....	171.3	148.7
27513 11	Catalogs.....	84.3	70.3
27513 15	Directories of all types.....	81.7	73.0
27513 00	Catalogs and directories printing (letterpress), not reported separately.....	5.3	5.4
27514 --	Financial and legal printing (letterpress).....	152.9	111.3
27514 23	Financial and legal printing, including insurance forms, security certificates, SEC filing, prospect uses, briefs, etc.....	72.8	58.0
27514 25	Bank printing, including deposit slips, counter checks, business checks, imprinting of bank checks, etc. (excluding checkbooks).....	53.8	28.7
27514 27	Bank form printing, including printing of passbooks, debit and credit slips, ledger and statement sheets, including the printing of installment-loan coupon books, etc. (excluding checkbooks).....	16.7	10.6
27514 00	Financial and legal printing (letterpress), not reported separately.....	10.2	14.0
27515 --	Advertising printing (letterpress).....	333.5	276.4
	Advertising printing (printing designed to sell products or services):		
27515 11	Direct mail, including circulars, letters, pamphlets, cards, and printed envelopes.....	217.3	125.1
27515 21	Display advertising (poster, car cards, window, counter, and floor displays, point-of-purchase and other printed display material).....	28.1	29.6
27515 98	Other advertising printing, including brochures, pamphlets, catalog sheets, circular folders, broadsides, announcements, package inserts, etc.....	76.0	78.0
27515 00	Advertising printing (letterpress), n.s.k.....	12.1	43.7
27516 --	Other general job printing (letterpress).....	527.3	717.0
27516 13	Scientific and technical recording charts and chart paper (containing preprinted grids and scale markings) except pen ruled.....	46.9	9.0
27516 24	Trading stamps and all types of seals (including private and decorative stamps).....	9.5	5.8
27516 34	Food and beverage check printing.....	11.5	5.3
27516 41	Newspapers, preprints (patent sides) shopping news, and market circulars.....	81.7	69.2
27516 44	Ticket and coupon printing, including transportation and amusement.....	19.3	19.7
27516 71	Business forms, n.e.c., including cut single manifold forms, loose or padded, but excluding blankbooks and looseleaf forms.....	92.8	125.9
27516 75	Tags, printed, including embossing.....	38.9	43.0
27516 81	Playing cards, printed.....	8.1	6.3
27516 83	Credit and identification cards, printed: plastic, paper, laminations, etc., including flexographic, printed.....	5.3	(NA)
27516 91	Printing on metal.....	4.4	2.1
27516 93	Calendars and calendar pads.....	33.3	31.0
27516 98	All other general commercial printing, not elsewhere reported, letterpress printing, including maps, atlases, globe covers, etc.....	134.3	191.1
27516 00	Other general job printing (letterpress) n.s.k.....	41.3	208.6
27517 --	Publication printing (gravure).....	224.4	158.9
27517 11	Newspapers preprints (patent sides), shopping news, and market circulars.....	2.4	4.5
27517 33	Magazines and periodicals (excluding magazine and comic supplements for Sunday newspapers)....	61.7	53.1
27517 35	Magazine and comic supplements for Sunday newspapers.....	71.4	46.3
27517 74	Catalogs.....	73.1	50.7
27517 76	Directories of all types.....	0.8	
27517 00	Publication printing (gravure) n.s.k.....	15.0	4.3

See footnotes at end of table.



TABLE 3. Value of Receipts by all Producers: 1967 and 1963--Continued

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of receipts")

Product code	Product	Value of receipts including interplant transfers (million dollars)	
		1967	1963
2751- --	COMMERCIAL PRINTING, EXCEPT LITHOGRAPHIC--Continued		
27518 --	Other gravure printing.....	232.9	145.9
	Labels, custom and stock printed, including bordered, made of paper or foil (excluding labels made of fabric):		
27518 21	Flat, except pressure sensitive.....	33.2	22.2
27518 24	Rolls, except pressure sensitive.....	27.8	32.1
	Wrappers or wraps (except bags, envelopes, pouches, etc.):		
27518 32	Paper.....	27.6	24.3
27518 31	Cellophane.....	8.7	(S)
27518 35	Other, including polyethylene.....	(D)	
27518 37	Other advertising printing, not reported above by product and/or process, including brochures, pamphlets, catalog sheets, circular folders, broadsides, announcements, package inserts, etc...	29.8	8.3
27518 71	Printing plates and cylinders made for others.....	31.9	17.6
27518 73	Trading stamps and all types of seals (including private and decorative stamps).....	(D)	(NA)
27518 81	Playing cards, printed.....	(D)	(NA)
27518 89	All other general commercial printing, not elsewhere reported.....	18.2	30.6
27518 00	Other gravure printing, n.s.k.....	5.9	4.1
27519 --	Screen process printing, except textiles.....	93.4	69.2
27519 11	Decalcomanias and pressure sensitives.....	14.6	8.8
27519 15	Decalcomanias: labels, custom and stock printed, including bordered--made of paper or foil.....	12.7	
27519 17	Pressure sensitive labels, custom and stock printed, including bordered--made of paper or foil..	10.9	10.9
27519 21	Display advertising (posters, car cards, window, counter, and floor displays, point-of-purchase and other printed display material).....	28.7	17.7
27519 29	Other advertising printing, including brochures, pamphlets, catalog sheets, circular folders, broadsides, announcements, package inserts, etc.....	9.8	6.2
27519 98	All other general commercial printing, not elsewhere reported.....	11.2	12.9
27519 00	Screen process printing, except textiles, n.s.k.....	5.5	12.6
27510 00	Commercial printing, except lithographic, not specified by process or kind of product. (For companies with 10 or more employees. See Note.).....	299.7	213.1
27510 02	Commercial printing, except lithographic, not specified by process or kind of product. (For companies with less than 10 employees. See Note.).....	321.5	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2751.--COMMERCIAL PRINTING, EXCEPT LITHOGRAPHIC					
	Materials, parts, and supplies, total.....		(X)	1,070.9	(X)	912.4
262112	Newsprint.....		(X)	76.5	(X)	68.0
262131	Coated papers.....		(X)	146.9	(X)	354.9
262101	All other paper.....		(X)	208.2	(X)	14.9
263105	Paperboard (excluding that used for shipping).....		(X)	11.4	(X)	
	Printing inks:					
289303	Letterpress, including news.....	Million lbs.....	91.3	45.8	160.1	64.9
289304	Lithographic.....	..do.....	4.4	6.8		
289309	Other including gravure, flexographic, and screen process.....	..do.....	135.4	30.9		
386151	Unexposed lithographic plates and metal for lithographic plates..	..do.....	(X)	4.8	(X)	(NA)
386101	Light sensitive films and papers.....		(X)	6.6	(X)	(NA)
386181	Photographic developers and chemicals used in plate preparation..		(X)	2.7	(X)	(NA)
976000	Materials, n.s.k.....		(X)	287.0	(X)	235.5
970099	All other materials and components, parts, containers, and supplies consumed; including metal type, etc.....		(X)	243.3	(X)	174.2

(NA) Not available. (X) Not applicable.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2751, these small establishments accounted for approximately 7 percent of payrolls and 9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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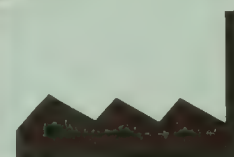
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-27B-2

## INDUSTRY SERIES

### Commercial printing, lithographic

SIC Code 2752

**preliminary  
report**

The Commercial Printing, Lithographic, Industry includes establishments primarily engaged in printing by the lithographic process. The greater part of the work in this industry is performed on a job or custom basis; but in some cases lithographed calendars, maps, posters, decalcomanias, etc., are made for sale. Offset printing, photo-offset printing, and photolithography are also included in this industry. Establishments primarily engaged in lithographing books and pamphlets, without publishing, are classified in industry 2732, and greeting cards in industry 2771.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of receipts of establishments classified in the Commercial Printing, Lithographic, Industry amounted to \$3,120.2 million, an increase of 45 percent compared with 1963. Value added by manufacture at \$1,882.0 million in 1967 was 45 percent more than value added in 1963. Average employment in the industry showed an increase of 20 percent from 1963 to a total of 145.8 thousand employees in 1967.

Of the \$3,120.2 million total value of receipts of establishments classified as commercial printing, lithographic, \$565.1 million were products primary to other industries; and \$27.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 82 percent of the total manufactured

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2752.—COMMERCIAL PRINTING, LITHOGRAPHIC													
1967 Census....	6,820	1,646	145.8	1,110.1	111.6	222.2	763.8	1,882.0	1,238.1	3,120.2	125.3	207.0	82	86
1966 ASM <sup>1</sup> .....	(NA)	(NA)	141.1	1,011.2	107.1	214.0	698.3	1,631.9	1,168.0	2,791.4	112.2	208.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	132.4	920.9	100.3	202.2	635.5	1,479.0	1,063.7	2,536.5	98.6	189.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	121.1	816.5	91.4	190.2	568.2	1,335.3	915.7	2,243.3	99.3	163.4	(NA)	(NA)
1963 Census....	6,822	1,339	121.1	794.4	91.4	187.3	554.9	1,302.0	852.3	2,149.7	76.9	160.6	80	82
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 12 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 80 percent in 1963.

The total value of receipts for commercial lithographic printing for all producers in 1967 was \$2,938.4 million of which \$2,528.1 million, or 86 percent, was received by plants classified in industry 2752, Commercial Printing, Lithographic, while the remainder was shipped by

plants classified in other industries. This percent, called the coverage ratio, was 82 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



## 1967 CENSUS OF MANUFACTURES

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TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2752.--COMMERCIAL PRINTING, LITHOGRAPHIC													
United States, Total.....	6,820	1,646	145.8	1,110.1	111.6	222.2	763.8	1,882.0	1,238.1	3,120.2	125.3	121.1	1,302.0
New England.....	438	138	10.7	73.9	8.2	16.8	51.0	121.1	68.2	189.4	7.6	8.4	79.3
Maine.....	14	3	0.1	0.7	0.1	0.2	0.6	1.5	0.6	2.0	0.1	0.2	1.2
New Hampshire.....	19	2	0.1	0.9	0.1	0.2	0.6	1.4	0.7	2.1	0.1	(D)	(D)
Vermont.....	10	2	0.1	0.6	0.1	0.2	0.5	0.9	0.5	1.3	0.1	(D)	(D)
Massachusetts.....	234	78	6.8	46.9	5.2	10.6	32.6	73.5	43.4	117.4	3.9	5.3	48.0
Rhode Island.....	30	5	0.4	2.7	0.3	0.6	1.7	4.3	2.7	7.0	0.2	(D)	(D)
Connecticut.....	131	48	3.1	22.0	2.4	5.0	15.0	39.5	20.3	59.5	3.2	2.1	21.4
Middle Atlantic.....	1,675	426	36.6	296.6	28.5	57.3	206.6	506.3	329.8	836.0	29.8	31.8	361.2
New York.....	1,056	261	22.9	191.5	17.7	36.2	133.9	331.6	216.4	548.9	18.8	20.4	236.8
New Jersey.....	258	59	4.8	39.3	3.8	7.5	26.0	65.6	45.9	111.3	3.3	3.8	45.0
Pennsylvania.....	361	106	8.9	65.8	7.0	13.6	46.6	109.1	67.5	175.8	7.8	7.6	79.5
East North Central....	1,571	456	43.4	343.1	33.5	66.3	237.0	552.6	383.4	936.1	41.7	35.9	404.6
Ohio.....	399	115	10.7	80.7	8.3	16.4	55.9	136.7	82.2	219.4	7.6	9.3	103.7
Indiana.....	143	34	2.6	18.7	1.9	3.9	12.1	32.1	17.7	49.7	2.8	2.0	19.2
Illinois.....	559	177	17.8	148.9	13.9	27.8	104.6	230.9	166.5	398.0	16.5	14.4	166.4
Michigan.....	299	81	6.9	53.7	5.1	9.9	35.8	85.2	68.3	152.8	7.2	5.7	70.6
Wisconsin.....	171	49	5.5	41.4	4.3	8.2	28.6	67.7	48.7	116.1	7.5	4.4	44.8
West North Central....	563	156	16.1	116.4	11.1	21.7	73.2	190.9	112.4	303.7	9.4	13.6	126.1
Minnesota.....	145	52	8.3	59.3	5.1	9.9	34.5	94.4	47.9	142.7	3.6	7.2	62.4
Iowa.....	87	16	1.1	7.1	0.8	1.6	4.7	11.2	6.4	17.6	0.5	(D)	(D)
Missouri.....	198	57	4.4	34.7	3.5	6.8	23.4	60.3	38.0	98.0	3.1	3.7	39.3
North Dakota.....	14	3	0.1	0.7	0.1	0.2	0.5	1.0	0.7	1.8	0.1	0.1	0.8
South Dakota.....	13	2	0.1	0.7	0.1	0.2	0.5	1.1	0.7	1.8	(Z)	(D)	(D)
Nebraska.....	47	13	0.9	5.9	0.7	1.3	4.0	9.7	7.6	17.5	(D)	(D)	(D)
Kansas.....	59	13	1.1	7.9	1.0	1.7	5.5	13.1	11.1	24.2	(D)	(D)	(D)
South Atlantic.....	722	162	12.3	84.1	9.7	19.6	59.6	168.5	106.0	274.0	14.4	9.2	98.8
Maryland.....	110	35	2.5	17.5	2.0	3.8	11.8	28.4	20.3	48.7	3.6	2.4	23.0
District of Columbia	53	16	1.2	9.2	1.0	2.0	6.8	15.0	10.9	25.7	1.1	0.9	8.4
North Carolina.....	111	16	1.1	6.7	0.9	1.8	4.5	11.4	6.8	18.1	1.1	0.6	6.7
Georgia.....	100	23	2.8	20.4	2.2	4.5	14.8	34.2	19.9	53.9	(D)	(D)	(D)
Florida.....	204	34	2.0	13.2	1.7	3.4	9.5	26.0	20.3	46.1	2.1	1.6	18.1
East South Central....	194	49	4.7	30.1	3.6	7.5	20.6	53.5	56.1	109.8	3.1	3.6	30.6
Kentucky.....	52	17	1.3	8.6	1.0	2.1	5.5	13.9	8.0	22.0	(D)	0.8	6.9
West South Central....	470	76	6.1	38.9	4.6	9.5	26.0	66.7	42.6	108.8	5.0	5.2	46.9
Louisiana.....	61	11	0.8	4.6	0.6	1.2	3.2	7.7	5.2	12.9	(D)	(D)	(D)
Texas.....	323	54	4.2	27.0	3.2	6.5	17.9	46.3	30.8	76.6	3.2	3.5	31.3
Mountain.....	237	29	2.3	16.0	1.8	3.7	11.6	30.1	18.2	48.1	1.5	2.5	24.6
Colorado.....	84	15	1.1	8.1	0.9	1.7	5.7	14.7	8.3	22.7	0.7	(D)	(D)
Arizona.....	57	3	0.4	2.9	0.3	0.7	2.2	5.4	4.2	9.8	0.3	(D)	(D)
Nevada.....	17	2	0.2	1.2	0.1	0.4	1.0	3.4	1.9	5.3	0.1	(D)	(D)
Pacific.....	950	154	13.6	111.3	10.5	19.8	78.0	192.3	121.5	314.5	12.9	11.0	129.8
Washington.....	91	12	1.3	9.9	1.0	1.9	7.5	15.9	8.8	24.7	0.7	(D)	(D)
Oregon.....	59	8	1.0	7.9	0.7	1.3	5.0	12.8	8.9	21.7	0.8	(D)	(D)
California.....	779	127	11.0	90.4	8.5	16.1	63.6	158.4	100.7	259.8	11.0	8.7	107.0
Hawaii.....	18	7	0.3	3.0	0.2	0.4	1.9	5.0	2.9	7.9	(D)	0.5	3.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Value of Receipts by All Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of receipts")

Product code	Product	Value of receipts including interplant transfers (million dollars)	
		1967	1963
2752- --	COMMERCIAL PRINTING, LITHOGRAPHIC, TOTAL.....	2,938.4	2,025.3
27521 --	Magazine and periodical printing (lithographic).....	287.2	138.5
27521 12	Magazines and periodicals (excluding magazine and comic supplements for Sunday newspapers):		
27521 14	Sheet-fed.....	98.7	136.0
	Web-fed.....	170.6	
27521 17	Magazine and comic supplements for Sunday newspapers.....	10.4	2.5
27521 00	Magazines and periodicals (lithographic) n.s.k.....	7.5	(X)
27522 --	Labels and wrappers printing (lithographic).....	190.1	147.5
	Labels, custom and stock printed, including bordered, made of paper or foil (excluding labels made of fabric):		
	Flat (except pressure sensitive):		
27522 11	Sheet-fed.....	113.3	117.8
27522 13	Web-fed.....	8.8	
27522 17	Pressure sensitive.....	35.5	6.0
27522 34	Wrappers or wraps, paper (except bags, envelopes, punches, etc.).....	26.0	11.1
27522 00	Labels and wrappers, printing (lithographic) n.s.k.....	6.5	12.6
27523 --	Catalogs and directories, printing (lithographic).....	268.9	165.3
	Catalogs:		
27523 12	Sheet-fed.....	117.2	130.9
27523 14	Web-fed.....	74.8	
27523 31	Directories all types.....	60.8	25.9
27523 00	Catalogs and directories, printing (lithographic) n.s.k.....	16.1	8.5
27524 --	Financial and legal printing (lithographic).....	140.8	108.9
27524 23	Financial and legal printing, including insurance forms, security certificates, SEC filings, prospect uses, briefs, etc.....	67.0	48.7
27524 25	Bank printing, including deposit slips, counter checks, business checks, imprinting of bank checks, etc. (excluding checkbooks).....	53.8	42.8
27524 27	Bank form printing, including the printing of pass books, debit and credit slips, ledger and statement sheets, including the printing of installment-loan coupon books, etc. (excluding checkbooks).....	16.8	10.2
27524 00	Financial and legal printing (lithographic) n.s.k.....	3.2	7.2
27525 --	Advertising printing (lithographic).....	975.6	721.6
	Direct mail, including circulars, letters, pamphlets, cards, and printed envelopes:		
27525 12	Sheet-fed.....	449.8	293.4
27525 14	Web-fed.....	113.1	
27525 31	Display advertising (posters, car cards, window, counter, and floor displays, point-of-purchase and other printed display material).....	123.1	127.8
	Other advertising printing, including brochures, pamphlets, catalog sheets, circular folders, broadsides, announcements, package inserts, etc.:		
27525 52	Sheet-fed.....	199.9	239.0
27525 54	Web-fed.....	23.7	
27525 00	Advertising printing (lithographic) n.s.k.....	66.0	61.3
27526 --	Other general job printing (lithographic).....	549.8	517.7
	Newspapers, preprints (patent sides), shopping news, and market circulars:		
27526 12	Sheet-fed.....	17.3	19.2
27526 14	Web-fed.....	42.4	
27526 13	Scientific and technical recording charts and chart paper (containing preprinted grids and scale markers), except pen ruled.....	(S)	5.1
27526 21	Maps, atlas, and globe cover printing, including roadmaps and strip maps.....	10.0	12.0
27526 43	Calendars and calendar pads.....	63.9	24.4
27526 44	Tickets, coupon, food and beverage check printing, including transportation and amusement.....	5.5	6.9
27526 47	Playing cards, printed.....	30.6	19.2
27526 51	Decalcomanias and pressure sensitives.....	13.5	10.6
27526 71	Trading stamps and all types of seal (including private and decorative stamps).....	7.8	8.0
27526 81	Printing on metal.....	43.1	38.7

See footnotes at end of table.



TABLE 3. Value of Receipts by All Producers: 1967 and 1963—Continued

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of receipts")

Product code	Product	Value of receipts including interplant transfers (million dollars)	
		1967	1963
2752- --	COMMERCIAL PRINTING, LITHOGRAPHIC,--Continued		
27526 --	Other general job printing (lithographic)--Continued		
27526 83	Credit and identification cards, printed; plastic, paper, laminations, etc.....	5.9	(NA)
	Business forms, n.e.c. including cut single manifold forms, loose or padded, but excluding blankbooks and looseleaf forms:		
27526 92	Sheet-fed.....	77.1	114.8
27526 94	Web-fed.....	21.3	
27526 95	Art reproductions and picture prints.....	33.6	18.4
	All other general commercial lithography, not elsewhere reported:		
27526 97	Sheet-fed.....	73.9	132.5
27526 99	Web-fed.....	10.9	
27526 00	Other commercial printing (lithographic) n.s.k.....	93.0	107.9
27527 11	Lithographic plates made for others.....	151.2	129.5
27520 00	Commercial lithographic printing, not specified by kind of product. (For companies with 10 or more employees. See Note.).....	221.1	96.3
27520 02	Commercial lithographic printing, not specified by kind of product (For companies with less than 10 employees. See Note.).....	153.7	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2752.--COMMERCIAL PRINTING, LITHOGRAPHIC					
	Materials, parts, and supplies, total.....		(X)	1,032.6	(X)	673.7
262112	Newsprint.....		(NA)	37.5	(NA)	14.7
262131	Coated papers.....		(NA)	188.0	(NA)	(NA)
262101	All other paper.....		(NA)	264.4	(NA)	350.9
263105	Paperboard (excluding that used for shipping).....		(NA)	10.2	(NA)	8.2
	Printing inks:					
289303	Letterpress, including news.....	Million lbs.....	(S)	15.8	22.5	31.5
289304	Lithographic.....	...do.....	22.4	35.8		
289309	Other, including gravure, flexographic, and screen process.....	...do.....	(S)	1.9		
386151	Unexposed lithographic plates and metal for lithographic plates..		(X)	29.7	(NA)	(NA)
386101	Light sensitive films and papers.....		(X)	18.7	(NA)	(NA)
386181	Photographic developers and chemicals used in plate preparation..		(X)	9.6	(NA)	(NA)
395500	One-time carbon paper; purchased or withdrawn from previous year's inventory by the printer.....	...do.....	5.7	3.7	3.6	2.7
262163	Carbonless paper.....	...do.....	5.5	3.6	(NA)	(NA)
	Consumption of one-time carbon paper and printing inks produced and consumed in this industry:					
395500	One-time carbon paper, produced and consumed in this industry..	...do.....	2.4	(X)	(S)	(X)
976000	Materials, n.s.k.....		(NA)	233.3	(NA)	119.9
970099	All other materials and components, parts, containers, and supplies consumed; including metal type, etc.....		(X)	180.4	(X)	145.8

(NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2752, these small establishments accounted for approximately 4 percent of payrolls and 9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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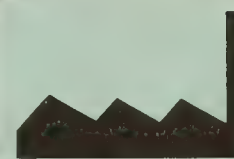
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Washington, D.C. 20233

POSTAGE AND FEES  
U.S. DEPARTMENT OF COMMERCE

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OFFICIAL BUSINESS



1967 CENSUS OF  
MANUFACTURES

## INDUSTRY SERIES

## Engraving and plate printing

SIC Code 2753

preliminary  
report

The Engraving and Plate Printing Industry includes establishments primarily engaged in engraving and etching steel, copper, wood, or rubber plates, in using these plates to print stationery, visiting and other cards, invitations, maps, etc.; and in making woodcuts for use in printing illustrations, posters, etc. Engraving for purposes other than printing is classified in industry 3479.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of receipts of establishments classified in the Engraving and Plate Printing Industry amounted to \$139.0 million, an increase

of 25 percent compared with 1963. Value added by manufacture at \$99.6 million in 1967 was 23 percent more than value added in 1963. Average employment in the industry showed an increase of 1 percent from 1963 to a total of 9.1 thousand employees in 1967.

Of the \$139.0 million total value of receipts of establishments classified in engraving and plate printing, \$16.8 million were products primary to other industries; and \$3.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 88 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2753.--ENGRAVING AND PLATE PRINTING													
1967 Census....	578	130	9.1	59.2	7.4	14.6	43.1	99.6	40.0	139.0	3.8	10.0	88	80
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.1	73.3	9.3	19.2	58.0	129.2	50.4	175.9	*4.6	12.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	12.0	75.7	10.0	20.6	59.0	134.2	40.5	170.8	*5.6	13.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	9.5	54.6	7.5	14.9	40.5	88.5	35.0	122.9	*1.0	10.3	(NA)	(NA)
1963 Census....	580	105	9.0	50.7	7.1	13.8	38.2	80.7	31.1	111.1	3.8	10.2	89	79
1962 ASM <sup>1</sup> .....	(NA)	(NA)	8.9	47.6	6.9	13.7	36.8	63.3	24.7	88.1	*1.6	8.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	9.5	48.7	7.5	14.2	37.4	68.6	26.1	93.4	*1.4	8.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	9.3	47.1	7.3	13.9	37.1	66.0	24.4	90.3	(S)	7.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	9.1	46.3	7.2	14.4	36.6	62.3	25.0	87.3	(S)	8.1	(NA)	(NA)
1958 Census <sup>2</sup> ....	528	102	9.0	43.1	7.2	13.6	33.3	64.5	23.2	87.2	3.6	8.5	92	82

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 11 and 10, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS George Hay Brown, Director

The total receipts for engraving and plate printing from all producers in 1967 was \$147.7 million of which \$118.6 million, or 80 percent, were received by plants classified in industry 2753, Engraving and Plate Printing, while the remainder was received by plants classified in other industries. This percent, called the coverage ratio, was 79 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2753. --ENGRAVING AND PLATE PRINTING													
United States, total.....	578	130	9.1	59.2	7.4	14.6	43.1	99.6	40.0	139.0	3.8	9.0	80.7
New England.....	50	11	1.1	7.1	0.9	1.7	5.1	10.8	3.8	14.6	0.6	0.9	6.9
Massachusetts.....	29	8	0.8	5.0	0.6	1.2	3.6	7.7	2.6	10.3	(D)	0.6	4.3
Rhode Island.....	7	1	0.1	0.6	0.1	0.1	0.5	0.7	0.2	0.9	(D)	(D)	(D)
Connecticut.....	11	2	0.2	1.4	0.2	0.3	1.0	2.2	0.9	3.1	(Z)	0.2	1.7
Middle Atlantic.....	188	35	2.9	19.6	2.4	4.8	14.6	33.7	15.6	48.8	1.1	3.4	32.7
New York.....	117	17	1.9	13.2	1.6	3.1	9.7	23.1	9.5	32.1	0.7	2.6	24.8
New Jersey.....	37	8	0.4	3.0	0.3	0.6	2.2	4.7	2.4	7.1	0.1	0.4	3.1
Pennsylvania.....	34	9	0.6	3.5	0.5	1.0	2.7	5.9	3.6	9.5	0.3	0.5	4.8
East North Central....	120	23	1.4	10.1	1.2	2.4	7.3	15.5	5.8	21.2	0.6	1.4	12.2
Ohio.....	25	6	0.3	1.9	0.3	0.5	1.4	2.9	1.3	4.2	0.1	0.3	2.1
Indiana.....	12	1	0.1	0.6	0.1	0.2	0.5	1.1	0.5	1.6	0.1	(D)	(D)
Illinois.....	55	14	0.8	6.0	0.7	1.4	4.3	9.2	3.1	12.3	0.3	0.8	7.2
Michigan.....	15	1	0.1	0.8	0.1	0.2	0.6	1.2	0.4	1.7	(Z)	0.2	1.9
Wisconsin.....	13	1	0.1	0.8	0.1	0.2	0.5	1.1	0.4	1.5	(Z)	(D)	(D)
West North Central....	33	9	0.5	3.5	0.4	0.9	2.6	6.0	2.3	8.3	0.2	0.4	2.9
Missouri.....	19	4	0.2	1.7	0.2	0.4	1.2	2.5	0.9	3.4	0.1	0.2	1.2
South Atlantic.....	57	16	0.9	5.1	0.7	1.4	3.7	8.6	3.1	11.6	0.3	0.9	7.5
Maryland.....	14	1	0.1	0.7	0.1	0.1	0.6	1.0	0.4	1.5	(Z)	(D)	(D)
District of Columbia	6	2	0.1	0.5	0.1	0.1	0.3	1.1	0.4	1.4	(Z)	(D)	(D)
North Carolina.....	11	4	0.3	1.5	0.2	0.5	1.2	2.2	0.8	3.1	0.1	0.2	1.7
Georgia.....	5	2	0.1	0.6	0.1	0.1	0.4	1.4	0.5	1.9	(D)	(D)	(D)
Florida.....	12	4	0.2	1.0	0.2	0.3	0.7	1.6	0.6	2.2	0.1	0.1	0.8
East South Central....	22	5	0.7	3.4	0.6	1.2	2.7	7.9	2.3	10.2	0.6	0.6	5.1
Kentucky.....	13	5	0.3	1.7	0.2	0.5	1.2	2.6	0.9	3.6	(D)	0.3	1.7
West South Central....	33	10	0.5	2.7	0.4	0.7	1.7	4.2	1.9	6.2	0.1	0.5	3.4
Texas.....	26	9	0.4	2.4	0.3	0.6	1.5	3.7	1.8	5.5	0.1	0.5	3.3
Mountain.....	7	2	0.1	0.6	0.1	0.2	0.4	1.3	0.4	1.7	(Z)	0.1	1.1
Pacific.....	67	15	0.9	6.7	0.7	1.4	4.7	11.1	4.9	15.9	0.3	0.8	8.9
California.....	61	13	0.8	6.0	0.7	1.3	4.3	10.1	4.3	14.4	(D)	0.7	8.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Value of Receipts by All Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of receipts including interplant transfers (million dollars)	
		1967	1963
2753- --	ENGRAVING AND PLATE PRINTING, TOTAL.....	147.7	111.2
27530 --	Engraving and plate printing (except photoengraving):		
	Kind of product:		
27530 12	Security.....	21.5	18.8
27530 22	Social.....	25.2	14.6
27530 32	Commercial.....	34.2	24.2
	Plates made for others (excluding duplicates):		
27530 42	Intaglio plates.....	5.9	2.4
27530 52	Other.....	13.9	9.7
	Duplicate plates for letterpress:		
27530 71	Rubber plates.....	9.5	10.8
27530 75	Other.....	11.4	10.6
27530 00	Engraving and plate printing, n.s.k. (For companies with 10 or more employees. See Note.).....	15.5	20.0
27530 02	Engraving and plate printing, n.s.k. (For companies with less than 10 employees. See Note.).....	10.6	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Quantity (million pounds)	Delivered cost (million dollars)	Quantity (million pounds)	Delivered cost (million dollars)
	INDUSTRY 2753.--ENGRAVING AND PLATE PRINTING				
	Materials, parts, and supplies, total.....	(X)	32.5	(X)	25.4
262101	Paper, all types.....	(X)	10.9	(NA)	9.6
263105	Paperboard (excluding that used for shipping).....	(X)	(S)	(NA)	(S)
	Printing inks.....	(S)	(S)	0.6	0.5
976000	Materials, n.s.k. ....	(X)	11.5	(X)	10.0
970099	All other materials and components, parts, containers, and supplies consumed; including metal type, etc.....	(X)	10.1	(X)	5.3

(NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2753, these small establishments accounted for approximately 6 percent of payrolls and 8 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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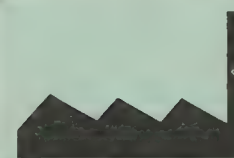
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-27B-4

## INDUSTRY SERIES

### Manifold business forms

SIC Code 2761

preliminary  
report

The Manifold Business Forms Industry includes establishments primarily engaged in designing and printing, by any process, special forms for use in the operation of a business, in single and multiple sets, including carbonized or interleaved with carbon or otherwise processed for multiple reproduction.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Manifold Business Forms Industry amounted to \$935.8 million, an increase of 47

percent compared with 1963. Value added by manufacture at \$553.1 million in 1967 was 46 percent more than value added in 1963. Average employment in the industry showed an increase of 20 percent from 1963 to a total of 34.6 thousand employees in 1967.

Of the \$935.8 million total value of shipments and other receipts of establishments classified as manifold business forms, \$85.2 million were products primary to other industries; and \$41.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 90 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 90 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2761.--MANIFOLD BUSINESS FORMS													
1967 Census....	541	294	34.6	241.2	25.4	51.5	159.7	553.1	385.4	935.8	39.7	99.1	90	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	31.6	208.3	23.1	48.5	140.3	486.3	345.6	823.9	44.4	90.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	30.3	192.3	22.3	46.6	128.6	436.5	309.5	739.7	29.5	80.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	28.8	177.8	21.5	44.8	120.7	401.3	281.3	679.6	22.2	69.2	(NA)	(NA)
1963 Census....	502	250	28.8	173.2	21.3	43.3	116.7	377.7	259.3	637.7	23.1	64.4	90	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	27.3	146.5	19.1	38.6	98.7	329.7	221.8	552.5	*22.3	59.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	26.3	136.5	18.5	36.3	91.4	299.0	199.3	497.8	*15.9	54.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	25.0	131.6	17.9	35.5	86.5	288.6	186.3	473.8	*18.3	51.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	24.7	128.1	18.0	35.5	84.9	273.3	178.2	450.8	*13.5	45.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	(NA)	165	23.6	120.9	16.9	32.8	79.6	245.2	160.0	405.7	14.8	43.3	91	90

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of manifold business forms shipped by all producers in 1967 was \$893.7 million of which \$808.9 million, or 91 percent, were shipped by plants classified in industry 2761, Manifold Business Forms, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2761.--MANIFOLD BUSINESS FORMS													
United States, total.....	541	294	34.6	241.2	25.4	51.5	159.7	553.1	385.4	935.8	39.7	28.8	377.7
New England.....	33	20	2.1	14.8	1.5	3.3	9.8	30.8	22.0	52.4	2.2	1.7	20.3
Massachusetts.....	13	8	0.7	5.1	0.5	1.0	2.9	7.7	5.9	13.6	0.5	0.8	6.6
Connecticut.....	11	7	0.6	5.2	0.5	1.1	3.9	12.1	8.6	20.4	0.7	0.5	8.5
Middle Atlantic.....	133	62	6.3	43.4	4.7	9.2	29.9	104.1	82.3	185.8	7.9	5.9	71.9
New York.....	76	31	3.0	21.2	2.1	4.2	14.4	46.0	35.6	81.3	1.4	3.4	41.7
New Jersey.....	22	8	0.9	6.0	0.6	0.8	3.4	10.5	8.6	19.0	0.7	1.1	9.1
Pennsylvania.....	35	23	2.5	16.3	2.0	4.2	12.1	47.5	38.1	85.4	5.8	1.5	21.2
East North Central..	104	71	11.2	83.6	8.0	15.9	52.3	177.5	111.0	286.9	12.6	9.1	127.9
Ohio.....	29	23	4.9	38.0	3.4	6.9	23.4	79.9	40.2	118.9	4.4	4.0	59.9
Indiana.....	7	5	0.8	5.3	0.6	1.2	3.3	15.2	10.4	25.7	(D)	0.6	12.1
Illinois.....	40	27	4.1	30.5	3.0	5.8	19.5	63.4	46.0	109.3	5.2	3.3	45.4
Michigan.....	17	9	0.9	6.8	0.6	1.2	4.1	10.0	6.9	16.8	1.2	0.8	7.1
Wisconsin.....	11	7	0.5	2.9	0.4	0.8	2.1	9.0	7.5	16.1	(D)	0.3	3.5
West North Central..	44	25	2.5	17.0	1.8	3.7	10.7	30.2	25.2	54.9	2.5	1.8	19.9
Minnesota.....	12	6	0.4	2.9	0.2	0.4	1.3	3.9	4.1	8.0	0.1	0.3	2.1
Missouri.....	17	9	0.8	5.3	0.6	1.2	3.7	8.5	6.8	15.2	0.4	0.8	8.5
South Atlantic.....	69	37	3.7	22.4	3.0	6.3	15.1	56.0	42.7	98.3	4.3	2.6	31.1
Virginia.....	7	5	0.6	2.9	0.5	0.9	2.0	6.7	5.1	11.9	(D)	(D)	(D)
North Carolina....	17	8	0.7	3.8	0.6	1.3	2.7	7.9	6.5	14.4	0.6	0.5	3.6
Florida.....	13	8	0.4	3.1	0.4	0.8	1.8	5.1	3.9	9.1	0.4	0.4	3.4
East South Central..	14	8	0.8	4.2	0.6	1.3	3.1	11.4	8.7	20.2	0.5	0.8	11.2
West South Central..	47	20	3.2	19.6	2.3	5.0	13.4	49.5	30.9	80.4	3.0	2.5	29.6
Texas.....	30	12	2.4	14.3	1.7	3.6	9.9	36.2	23.3	59.7	1.4	2.0	23.5
Mountain.....	14	6	0.4	2.6	0.3	0.5	1.5	4.4	3.1	7.5	1.4	0.2	1.9
Arizona.....	5	2	0.1	0.9	0.1	0.2	0.5	1.5	1.1	2.6	(D)	(D)	(D)
Pacific.....	83	45	4.4	33.5	3.3	6.4	24.0	89.2	59.6	149.5	5.4	4.2	63.9
California.....	65	37	3.9	30.2	2.8	5.5	21.3	77.7	52.9	131.4	4.6	3.8	56.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Value of Shipments by All Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of shipments including interplant transfers (million dollars)	
		1967	1963
2761- --	MANIFOLD BUSINESS FORMS, TOTAL.....	893.7	598.4
27611 --	Continuous business forms.....	485.4	291.1
27611 11	Imprinted stock forms.....	97.4	15.9
27611 15	Stock forms.....	81.6	53.9
27611 21	Specially printed (produced to individual order) and spirit duplicating paper plates.....	239.2	169.9
27611 25	Tabulating cards, continuous (single tabulating cards in continuous forms, with or without a medial strip between cards, with or without a side voucher, or top or bottom voucher).....	18.5	(NA)
27611 31	Fanfold (multiple copy form of two or more parts, in which the parts are hinged and joined; fanfold including any combined form in which 50 percent or more of the parts are so hinged)....	24.1	25.9
27611 51	Autographic register (any form, strip or fanfold of any number of parts in continuous rolls or folded packs sold for use in an autographic register).....	21.9	22.2
27611 00	Continuous business forms, not distributed by kind.....	2.7	3.2
27612 --	Unit-set forms.....	340.9	258.0
27612 11	Stocks, including imprinted.....	58.8	20.3
27612 51	Specially printed (produced to individual order).....	243.7	216.7
27612 61	Tabulating card sets (any combination of one or more cards assembled and joined with any sheet, with or without carbon, held together by a common perforated stub, not in continuous style)....	36.9	17.3
27612 00	Unit-set forms, not distributed by kind.....	1.5	3.6
27613 --	Sales and other manifold books except food and beverage checks.....	44.2	39.6
27613 11	Stock (excluding imprinted).....	9.5	5.3
27613 51	Specially printed (produced to individual order).....	34.7	34.3
27610 00	Manifold business forms, n.s.k. (For companies with 10 or more employees. See note.).....	17.9	9.8
27610 02	Manifold business forms, n.s.k. (For companies with less than 10 employees. See note.)	5.3	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2761.--MANIFOLD BUSINESS FORMS					
	Materials, containers, and supplies, total.....		(X)	346.9	(X)	232.9
262112	Newsprint.....		(NA)	5.2	(NA)	4.1
262131	Coated papers.....		(NA)	16.8	(NA)	(NA)
262101	All other paper.....		(NA)	181.7	(NA)	140.7
263105	Paperboard.....				(NA)	2.0
289301	Printing inks.....		(S)	4.4	4.1	3.5
262164	Carbonizing tissue stock for conversion by the printer into one-time carbon paper.....	1,000 short tons.	7.4	31.0	46.4	21.1
395500	One-time carbon paper, purchased or withdrawn from previous year's inventory by the printer.....	...do.....	61.7	35.3	36.6	23.0
262163	Carbonless paper.....	...do.....	21.8	14.5	(NA)	(NA)
	Consumption of one-time carbon paper and printing inks produced and consumed in this industry:					
395500	One-time carbon paper, produced and consumed in this industry..	...do.....	66.7	(X)	41.6	(X)
289301	Printing inks, complete formulations.....	Million lbs.....	(S)	(X)	1.3	(X)
976000	Materials, n.s.k.....		(X)	10.8	(X)	10.2
970099	All other materials and components, parts, containers, and supplies consumed; including metal type, etc.....		(X)	47.2	(X)	30.2

(NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2761, these small establishments accounted for approximately 0.5 percent of payrolls and 3.9 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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**OFFICIAL BUSINESS**

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE**



# 1967 CENSUS OF MANUFACTURES

MC67(P)-27C-1

## INDUSTRY SERIES

**preliminary  
report**

### Greeting card publishing

SIC Code 2771

The Greeting Card Publishing Industry includes establishments primarily engaged in the designing, publishing, and printing by any process of greeting cards for all occasions.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Greeting Card Publishing Industry amounted to \$517.9 million, an increase of 49.7 percent compared with 1963. Value added by manufacture at \$372.3 million in 1967 was 81.9 percent more than value added in 1963. Average employment in the industry showed an increase of

28.3 percent from 1963 to a total of 27.6 thousand employees in 1967.

Of the \$517.9 million total value of shipments and other receipts of establishments classified in the Greeting Card Publishing Industry, \$62.0 million were products primary to other industries; and \$41.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

The total value of greeting card publications shipped by all producers in 1967 was \$440 million of which \$414 million, or 94 percent, were shipped by plants classified in industry 2771, Greeting

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2771.--GREETING CARD PUBLISHING													
1967 Census....	223	92	27.6	150.6	16.4	31.3	75.0	372.3	171.9	517.9	14.9	147.8	87	94
1966 ASM <sup>1</sup> .....	(NA)	(NA)	27.2	154.9	15.5	32.3	69.9	296.5	177.0	460.1	*25.7	112.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	24.7	132.2	14.3	28.7	59.9	255.2	159.7	407.4	*11.4	92.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	22.6	115.1	13.5	26.5	57.2	247.2	141.5	385.7	*13.6	83.1	(NA)	(NA)
1963 Census....	257	93	21.5	105.6	13.4	26.2	53.9	204.6	138.3	346.0	6.8	75.2	92	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	23.7	112.1	15.4	29.7	59.2	192.4	147.0	331.7	*5.6	74.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	23.2	107.0	14.6	29.4	55.5	187.7	136.2	321.3	*8.9	71.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	23.0	101.5	14.2	27.7	52.9	196.5	128.9	319.6	6.3	72.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	22.7	98.9	15.1	28.7	54.3	194.0	123.2	308.3	*7.6	65.6	(NA)	(NA)
1958 Census <sup>2</sup> ....	282	100	21.8	89.4	14.8	28.3	50.6	178.6	117.2	291.5	5.2	53.2	94	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

Card Publishing, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1,

2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2771.--GREETING CARD PUBLISHING												
United States, total.....	223	92	27.6	150.6	16.4	31.3	75.0	372.3	171.9	517.9	14.9	21.5	204.6
New England.....	31	16	3.7	18.0	2.5	4.3	9.5	45.1	23.0	65.9	1.3	3.9	28.9
Massachusetts.....	17	9	2.4	11.0	1.7	2.8	5.9	30.0	13.0	41.4	0.6	2.6	19.4
Middle Atlantic.....	89	32	3.7	17.3	3.2	6.1	12.6	51.9	37.6	82.1	1.6	4.9	44.5
New York.....	58	22	2.9	13.4	2.5	4.7	9.9	45.1	30.9	68.4	1.5	4.2	39.7
New Jersey.....	10	5	0.3	1.9	0.3	0.5	1.1	4.2	3.1	7.3	0.1	0.2	2.4
Pennsylvania.....	11	5	0.5	2.0	0.5	0.9	1.7	2.6	3.7	6.4	(Z)	0.4	2.4
North Central.....	61	28	16.5	98.1	8.0	15.7	42.6	220.4	87.2	292.4	9.6	0.3	3.1
Illinois.....	24	10	1.6	7.5	1.2	2.3	5.1	12.8	7.8	21.8	0.4	1.9	13.4
Kansas.....	7	6	2.0	10.9	1.7	3.4	8.9	26.4	2.8	27.6	3.0	(D)	(D)
South Atlantic.....	11	4	0.3	1.9	0.2	0.4	1.1	3.9	2.6	6.3	0.1	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers			
		1967		1963	
		Quantity (million copies sold)	Value (million dollars)	Quantity (million copies sold)	Value (million dollars)
2771- --	GREETING CARDS, TOTAL.....	(X)	440.0	(X)	310.2
27711 --	Greeting cards, publishers' sales.....	(X)	379.8	(X)	262.8
27711 11	Christmas cards.....	2,248	121.2	2,611	104.0
27711 21	Seasonal cards other than Christmas.....	933	80.2	1,170	55.0
27711 31	Other greeting cards.....	1,763	176.1	1,604	98.3
27711 00	Greeting cards, n.s.k.....	(X)	2.3	(NA)	5.4
27712 --	Greeting cards, printed for publication by others.....	(X)	44.0	(X)	39.9
27712 11	Letterpress process.....	(X)	15.2	(X)	17.5
27712 51	Lithographic process.....	(X)	28.3	(X)	20.1
27712 00	Other (including engraving and gravure process).....	(X)	0.5	(X)	2.4
27710 00	Greeting cards, receipts, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	12.0	(X)	7.5
27710 02	Greeting cards, receipts, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	4.2		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	1967		1963	
		Total quantity of paper consumed (1,000 short tons)	Delivered cost (million dollars)	Total quantity of paper consumed (1,000 short tons)	Delivered cost (million dollars)
	INDUSTRY 2771.--GREETING CARD PUBLISHING				
	Materials, parts, and supplies, total.....	(X)	120.3	(X)	89.4
262131	Coated paper, all types.....	26.5	11.1	25.7	9.1
262102	Uncoated papers (groundwood, book, bond, writing, ledger, and manifold).....	70.2	25.3	46.9	15.8
262150	Bristols, cover, text, and other specialty paper uncoated.....	8.0	3.5	10.8	4.0
264200	Purchased envelopes (quantity in millions of envelopes).....	4,291.6	10.9	3,211.1	8.1
976000	Materials not specified.....	(X)	11.4	(X)	15.5
970099	All other materials and components, parts, containers, and supplies consumed.....	(X)	58.1	(X)	36.8

<sup>e</sup>From 10 to 30 percent of this figure was estimated. (X) Not applicable.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees**--All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls**--This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours**--This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials**--The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed**--In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments**--The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**

**U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233**

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# 1967 CENSUS OF MANUFACTURES

MC67(P)-27C-2



## INDUSTRY SERIES

**preliminary  
report**

### Blankbooks and looseleaf binders

SIC Code 2782

The Blankbooks and Looseleaf Binders and Devices Industry includes establishments primarily engaged in manufacturing blankbooks, looseleaf devices, and library binders, and in ruling paper.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Blankbooks and Looseleaf Binders Industry amounted to \$408.9 million, an increase of 52 percent compared with 1963. Value added

by manufacture at \$257.4 million in 1967 was 53 percent more than value added in 1963. Average employment in the industry showed an increase of 36 percent from 1963 to a total of 24.3 thousand employees in 1967.

Of the \$408.9 million total value of shipments and other receipts of establishments classified as blankbooks and looseleaf binders, \$57.7 million were products primary to other industries; and \$21.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 85 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2782.—BLANKBOOKS AND LOOSELEAF BINDERS													
1967 Census....	447	196	24.3	136.0	20.4	40.4	100.0	257.4	154.4	408.9	12.4	59.1	85	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	21.4	116.2	17.7	34.8	83.3	220.4	127.3	344.2	9.6	49.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	19.7	104.1	16.1	31.9	74.4	190.2	113.7	302.7	7.3	44.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	19.5	101.6	15.4	32.2	69.5	178.9	116.0	297.2	*7.5	42.7	(NA)	(NA)
1963 Census....	410	158	17.9	91.2	14.4	28.7	64.4	168.5	101.4	268.2	6.1	39.9	88	88
1962 ASM <sup>1</sup> .....	(NA)	(NA)	22.7	105.4	17.8	35.3	68.5	190.5	122.3	310.7	*7.4	41.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	20.9	97.1	16.4	32.4	61.8	169.5	111.3	280.4	*6.5	38.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	19.8	91.7	15.2	31.3	60.3	159.1	104.2	261.5	(S)	37.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	19.4	86.9	14.9	30.5	56.6	150.5	98.0	247.7	(S)	33.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	434	166	17.9	79.0	13.8	26.8	52.7	132.7	83.3	217.9	6.8	32.8	85	84

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
 Rocco C. Siciliano, Under Secretary  
 William H. Chartener, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** A. Ross Eckler, Director

The total value of blankbooks and looseleaf binders shipped by all producers in 1967 was \$360.9 million of which \$330.2 million, or 91 percent, were shipped by plants classified in industry 2782, Blankbooks and Looseleaf Binders, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 88 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

1967 CENSUS OF MANUFACTURES  
TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2782.—BLANKBOOKS AND LOOSELEAF BINDERS												
United States, total.....	447	196	24.3	136.0	20.4	40.4	100.0	257.4	154.4	408.9	12.4	17.9	168.5
New England.....	34	17	3.3	16.5	2.7	4.9	12.2	32.5	21.6	54.2	1.1	2.6	23.9
Massachusetts.....	23	13	2.7	13.1	2.3	4.0	10.1	24.2	17.8	42.1	1.0	2.0	17.6
Middle Atlantic.....	169	71	7.7	43.3	6.5	12.9	31.8	83.8	48.4	130.5	3.9	6.4	55.6
New York.....	123	49	4.5	23.9	3.7	7.2	16.7	48.5	31.0	78.6	1.4	4.0	34.7
New Jersey.....	25	14	2.4	14.6	2.1	4.4	11.5	27.4	14.6	41.2	2.0	1.8	16.7
Pennsylvania.....	21	8	0.8	4.8	0.7	1.4	3.5	7.9	2.8	10.7	0.6	0.6	4.2
East North Central....	90	40	5.6	31.7	4.8	9.5	23.2	57.6	31.5	88.4	2.8	4.1	38.0
Ohio.....	18	8	0.5	3.4	0.5	0.9	2.4	6.5	3.0	9.5	0.3	0.4	4.8
Illinois.....	48	20	3.4	18.8	2.9	5.5	13.7	32.0	19.1	50.6	1.4	2.4	22.4
Michigan.....	14	8	0.8	4.7	0.7	1.5	3.6	9.4	6.0	15.3	0.7	0.6	5.2
West North Central....	36	15	2.7	16.3	2.3	4.7	12.5	33.1	24.7	57.0	2.2	1.4	15.5
Missouri.....	15	9	1.8	9.8	1.5	2.9	7.7	20.6	19.6	39.5	(D)	0.7	7.7
South Atlantic.....	38	16	1.5	8.2	1.2	2.5	5.4	12.8	6.4	19.1	0.5	0.9	7.2
North Carolina.....	6	2	0.2	0.6	0.2	0.3	0.5	0.7	0.6	1.3	(Z)	(D)	(D)
Florida.....	10	4	0.2	0.7	0.2	0.4	0.6	1.5	0.9	2.4	(D)	(D)	(D)
East South Central....	10	2	0.1	0.6	0.1	0.2	0.5	1.2	1.2	2.3	0.1	0.2	1.6
West South Central....	18	8	0.5	2.9	0.4	0.8	1.9	5.7	3.3	9.0	0.2	0.5	6.3
Texas.....	9	6	0.4	2.3	0.3	0.7	1.5	5.1	2.7	7.7	(D)	0.4	5.5
Mountain.....	6	2	0.1	0.4	0.1	0.2	0.3	0.5	0.8	1.2	0.1	(D)	(D)
Pacific.....	46	25	2.7	16.2	2.3	4.6	12.2	31.4	15.6	47.1	1.6	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$500 thousand.



TABLE 3. Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total shipments including interplant transfers (million dollars)	
		1967	1963
2782- --	BLANKBOOKS AND LOOSELEAF BINDERS, TOTAL.....	360.9	252.0
27821 --	Blankbook making, total.....	187.1	124.3
27821 11	Columnar, ledger and account books, including record books which are section-sewed and center stitched (also including time books and miniature account books).....	10.2	10.3
27821 31	Albums and scrapbooks, including record, photograph, and stamp albums, etc.....	39.4	24.0
27821 35	Diaries and appointment books.....	5.8	7.5
27821 51	Columnar pads (lithographed, printed, ruled; bound or wirebound).....	4.9	18.7
27821 53	Memo books, case-made, sewed or glued to leather, imitation leather, or similar materials.....	2.3	
27821 55	Miscellaneous blankbooks, including address books, bound roll books, drafts, receipts, and financial notes.....	17.9	
	Checkbooks, including inserts and refills but excluding those in continuous form and die cut:		
27821 43	Letterpress process.....	84.2	45.7
27821 45	Lithographic process.....	19.4	14.4
27821 61	Paper ruling on materials owned by others (pen and disc).....	0.9	1.7
27821 00	Blankbook making and paper ruling, n.s.k.....	2.1	2.0
27822 --	Looseleaf binders and devices, total.....	152.1	119.6
27822 13	Looseleaf forms, record type.....	15.7	15.8
27822 21	Looseleaf indexes.....	5.6	6.1
27822 33	Looseleaf binders, ring and prong-types, including looseleaf memo books.....	90.1	84.1
27822 35	Post binders, i.e., all types of post binders such as thin post, heavy post, and nylon post.....	14.0	
27822 39	Other looseleaf binders, including minute and municipality record books and catalog covers.....	10.2	
27822 71	Looseleaf parts sold separately.....	13.0	
27822 00	Looseleaf devices, binders, forms, and fillers, n.s.k.....	3.5	2.7
27820 00	Blankbooks and looseleaf binders, n.s.k.....	15.0	8.1
27820 02	Blankbooks and looseleaf binders, n.s.k.....	6.7	

n.s.k. Not specified by kind.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

Code	Material	Delivered cost (million dollars)	
		1967	1963
	INDUSTRY 2782.-BLANKBOOKS AND LOOSELEAF BINDERS		
	Materials, parts, and supplies, total.....	139.5	87.6
262100	Paper (newsprint, book, bond, cover, coated, tissue, groundwood, ledger, writing, file folder, and tag stock).....	43.6	33.4
263105	Paperboard, excluding that used for shipping.....	16.4	7.5
229507	Coated or impregnated woven and nonwoven fabric, except rubberized.....	6.7	8.5
307918	Plastic film or sheeting.....	9.2	33.1
331094	Steel, strip and wire.....	10.1	
970099	All other materials and components, parts, containers, and supplies consumed including ink, metals, type, etc.....	40.5	
972000	Materials not specified.....	13.0	

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES



MC67(P)-27C-3

## INDUSTRY SERIES

**preliminary  
report**

### Bookbinding and related work

SIC Code 2789

The Bookbinding and Related Work Industry includes establishments primarily engaged in edition, trade, job, and library bookbinding; in book or paper bronzing, gilding, and edging; in map and sample mounting; and other services related to bookbinding. Establishments primarily engaged in binding books printed elsewhere are classified in this industry but those primarily binding books printed in the same establishments are classified in Group 273, Books.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of receipts for establishments classified in the Bookbinding and Related Work

Industry amounted to \$341.7 million, an increase of 50 percent compared with 1963. Value added by manufacture at \$261.5 million in 1967 was 52 percent more than value added in 1963. Average employment in the industry showed an increase of 25 percent from 1963 to a total of 30.4 thousand employees in 1967.

Of the \$341.7 million total value of receipts of establishments classified as bookbinding and related work, \$19.6 million were products primary to other industries; and \$21.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2789.--BOOKBINDING AND RELATED WORK														
1967 Census....	1,020	336	30.4	164.5	27.3	50.5	131.4	261.5	80.4	341.7	13.5	21.0	94	90
1966 ASM <sup>1</sup> .....	(NA)	(NA)	32.6	161.6	28.7	52.8	127.0	253.0	100.8	349.1	11.0	28.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	29.3	142.5	25.5	47.7	112.0	220.7	80.3	299.3	7.0	21.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	24.1	118.7	21.7	40.0	94.3	177.8	62.7	238.3	*5.1	16.6	(NA)	(NA)
1963 Census....	1,043	311	24.3	115.0	21.7	40.8	92.9	172.3	57.5	228.5	8.0	14.7	95	83
1962 ASM <sup>1</sup> .....	(NA)	(NA)	23.6	104.5	22.3	38.8	82.4	154.3	59.4	211.0	*6.7	11.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	23.4	102.0	22.0	39.5	81.1	148.5	58.2	205.0	5.6	10.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	24.5	99.6	23.1	40.1	79.4	149.3	58.2	206.4	(S)	11.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	23.8	97.0	22.5	40.1	78.0	142.8	57.0	199.5	(S)	13.1	(NA)	(NA)
1958 Census <sup>2</sup> ...	972	294	22.2	87.4	19.5	37.4	69.0	132.7	48.6	182.0	6.6	12.7	94	86

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of receipts for bookbinding and related work by all producers in 1967 was \$335.3 million of which \$300.3 million, or 90 percent, were receipts by plants classified in industry 2789, Bookbinding and Related Work, while the remainder were receipts by plants classified in other industries. This percent, called the coverage ratio, was 83 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll  (million dollars)	Number	Man-hours  (millions)	Wages  (million dollars)						
(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2789--BOOKBINDING AND RELATED WORK												
United States, total.....	1,020	336	30.4	164.5	27.3	50.5	131.4	261.5	80.4	341.7	13.5	24.3	172.3
New England.....	70	20	1.6	8.2	1.5	2.7	6.4	13.0	2.7	15.7	0.4	1.2	7.4
Massachusetts.....	45	15	1.2	5.6	1.1	2.0	4.4	9.5	2.0	11.5	0.3	1.0	6.3
Middle Atlantic.....	421	145	13.0	77.2	11.7	21.7	62.2	118.0	27.4	145.6	6.0	11.5	83.2
New York.....	301	95	8.0	49.6	7.3	13.6	40.9	74.4	15.6	89.7	2.4	8.6	62.8
New Jersey.....	55	21	2.5	14.4	2.3	4.1	11.4	22.7	5.7	28.3	2.1	1.1	6.9
Pennsylvania.....	65	29	2.5	13.3	2.2	3.9	9.8	20.9	6.2	27.6	1.5	1.8	13.4
East North Central...	181	81	7.8	41.0	7.0	13.2	32.2	66.6	24.1	91.0	2.9	6.0	45.4
Ohio.....	33	12	0.8	4.0	0.7	1.3	3.0	6.2	1.5	7.7	0.3	0.7	4.6
Illinois.....	94	41	4.7	25.8	4.3	8.2	20.6	42.7	18.6	61.7	1.8	3.7	29.1
Michigan.....	23	15	1.2	5.9	1.0	1.8	4.7	9.4	1.6	11.1	0.6	(D)	(D)
West North Central...	62	19	1.9	9.2	1.7	3.0	7.5	18.7	7.7	26.3	1.2	1.2	8.1
Missouri.....	30	13	1.3	6.2	1.1	2.1	5.2	13.6	5.3	18.9	(D)	0.8	5.8
South Atlantic.....	81	27	2.4	11.4	2.2	4.2	9.2	17.3	6.0	23.4	0.9	2.1	12.0
District of Columbia.....	8	2	0.1	1.0	0.1	0.2	0.9	1.3	0.2	1.5	0.1	0.2	1.0
North Carolina.....	11	5	0.5	1.8	0.4	0.7	1.4	2.3	0.8	3.1	0.1	0.5	2.0
Florida.....	27	6	0.4	2.0	0.4	0.7	1.6	2.9	1.0	3.9	(D)	0.3	1.6
East South Central...	13	4	0.3	1.4	0.3	0.5	1.2	2.1	0.9	3.1	(D)	0.1	1.1
West South Central...	45	16	1.2	4.8	1.1	1.9	3.9	7.6	3.9	11.5	(D)	0.7	4.0
Texas.....	27	11	1.0	3.9	0.9	1.5	3.1	6.3	3.1	9.4	(D)	0.5	3.0
Mountain.....	22	5	0.3	1.5	0.3	0.6	1.2	2.2	0.8	3.0	0.1	0.3	2.1
Pacific.....	125	19	1.7	9.7	1.5	2.8	7.7	16.0	6.8	22.2	1.1	1.2	9.0
Oregon.....	5	2	0.1	0.3	0.1	0.1	0.3	0.8	0.2	1.0	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Value of Receipts by All Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of receipts")

Product code	Product	Value of receipts (million dollars)	
		1967	1963
2789- --	BOOKBINDING AND RELATED WORK.....	335.3	243.2
27891 --	Edition, library and other hard cover bookbinding: Edition, library and trade binding (printing and binding of books by the publisher are included in the book publishing industry, SIC 2731. Printing and binding of books published by others are included in the data for book printing, SIC 2732.).....	167.5	109.3
	Edition binding (hardbound):		
27891 13	General trade books.....	44.3	27.6
27891 15	Textbooks.....	35.5	20.9
27891 17	Reference books-e.g., encyclopedias, dictionaries, etc.....	24.8	20.1
27891 19	Other books.....	14.7	13.1
27891 41	Library binding, including rebinding and prebinding of books for library use, hard cover binding of periodicals and records, and other hard cover binding, except edition.....	39.5	24.2
27891 00	Edition, library, and other hard cover bookbinding, not reported by kind.....	8.7	3.3
27892 --	Other book and pamphlet binding and related binding work.....	133.9	117.6
27892 23	Soft cover binding of books (49 or more pages, exclusive of the covers).....	16.1	8.8
27892 25	Pamphlet and other soft cover binding.....	42.8	37.5
27892 61	Mechanical binding (wire, plastic, etc.) of products printed elsewhere.....	19.2	16.1
27892 91	Receipts for miscellaneous bookbinding work (material printed elsewhere); embossing, varnishing, indexing, mounting, and other service operations related to bookbinding, including sample and color cards.....	51.8	49.9
27892 00	Other book and pamphlet binding and related binding work not reported by kind.....	4.0	5.3
27890 00	Bookbinding (books printed elsewhere), n.s.k. (For companies with 10 or more employees. See Note.).....	19.1	16.3
27890 02	Bookbinding (books printed elsewhere), n.s.k. (For companies with less than 10 employees. See Note.).....	14.8	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Delivered cost (million dollars)	
		1967	1963
	Materials, parts, and supplies, total.....	65.7	46.4
262100	Paper (newsprint, book, bond, cover, coated, tissue, groundwoods, ledger, writing, file folder, and tag stock).....	10.1	6.0
263105	Paperboard excluding that used for shipping.....	6.2	3.6
229507	Coated or impregnated woven and nonwoven fabric, except rubberized.....	7.1	5.9
976000	Materials not specified.....	18.2	14.5
970099	All other materials and components, parts, containers, and supplies consumed including ink metals, type, etc.....	24.1	16.3

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2789, these small establishments accounted for approximately 3 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

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**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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*Current Industrial Reports present data for industries in the following broad categories:*

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

preliminary  
report

## Typesetting

SIC Code 2791

The Typesetting Industry includes establishments primarily engaged in typesetting for the trade, including advertisement typesetting.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of receipts of establishments classified in the Typesetting Industry amounted to \$355.7 million, an increase of 48 percent compared with 1963. Value added by manufacture at \$304.1 million in 1967 was 48 percent more than value

added in 1963. Average employment in the industry showed an increase of 21 percent from 1963 to a total of 25.5 thousand employees in 1967.

Of the \$355.7 million total value of shipments and other receipts of establishments classified as typesetting, \$17.5 million were products primary to other industries; and \$7.2 million were receipts for miscellaneous activities. The industry receipts of primary products represented 95 percent of the total receipts, primary and secondary. This percent, called the specialization ratio for the industry, was also 95 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2791.-TYPESETTING													
1967 Census....	1,535	366	25.5	207.6	21.0	40.2	163.3	304.1	51.9	355.7	12.0	14.4	95	93
1966 ASM <sup>1</sup> .....	(NA)	(NA)	23.8	188.6	19.1	37.3	141.1	267.3	42.3	309.6	14.5	12.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	22.1	167.9	17.4	34.1	128.7	231.9	39.9	272.2	*7.3	12.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	23.0	162.9	18.6	34.8	132.1	227.3	37.8	261.7	*5.6	13.5	(NA)	(NA)
1963 Census....	1,289	282	21.0	147.3	16.9	33.5	118.7	205.4	36.3	241.0	6.7	10.7	95	90
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*16.5	*116.3	*12.7	*28.3	*92.5	*168.8	*27.3	*195.3	*8.4	*8.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	16.6	110.7	12.7	27.8	87.6	155.9	21.6	176.7	*4.3	7.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	18.7	122.6	14.9	30.8	98.9	163.7	24.9	190.1	(S)	9.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	19.1	118.8	15.2	30.8	95.0	162.5	23.4	184.4	(S)	11.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,188	247	18.0	109.4	14.4	27.3	85.4	155.1	22.5	177.2	7.2	9.7	93	92

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 9 and 6, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

The total receipts of typesetting for all producers in 1967 were \$356.9 million of which \$331.1 million, or 93 percent, were shipped by plants classified in industry 2791, Typesetting, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 90 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2791.-TYPESETTING													
United States, total.....	1,535	366	25.5	207.6	21.0	40.2	163.3	304.1	51.9	355.7	12.0	21.0	205.4
New England.....	108	31	1.9	13.8	1.6	3.1	11.0	20.2	3.0	23.6	0.9	1.5	14.0
Massachusetts.....	64	19	1.0	7.0	0.8	1.6	5.4	11.0	1.9	12.8	0.4	0.8	7.5
Middle Atlantic.....	462	139	9.8	81.1	8.1	15.6	64.2	119.6	18.9	138.1	3.7	8.6	82.8
New York.....	320	98	6.3	55.5	5.1	9.9	43.5	82.0	12.9	94.7	2.6	5.6	58.0
New Jersey.....	60	9	0.6	4.2	0.5	0.9	3.3	6.4	1.3	7.6	0.2	(D)	(D)
Pennsylvania.....	82	32	2.9	21.5	2.5	4.9	17.4	31.2	4.8	35.8	0.9	(D)	(D)
East North Central....	340	86	6.5	56.6	5.3	10.1	43.9	79.8	15.5	95.2	3.8	5.1	52.4
Illinois.....	149	45	3.4	31.2	2.8	5.4	24.7	42.1	5.5	47.6	1.5	2.6	27.6
Michigan.....	57	14	1.2	11.2	1.0	1.8	8.2	16.7	7.3	23.9	1.3	0.9	9.1
Wisconsin.....	26	4	0.2	1.3	0.1	0.3	1.0	2.2	0.3	2.4	0.1	0.3	2.0
West North Central....	110	18	1.5	11.0	1.2	2.1	8.4	16.8	3.0	19.8	0.8	1.1	11.6
Minnesota.....	23	7	0.5	4.4	0.4	0.7	3.4	6.4	1.1	7.4	0.3	0.4	4.6
Missouri.....	55	7	0.6	4.7	0.5	0.8	3.5	7.3	1.4	8.6	0.3	0.5	5.3
Nebraska.....	10	2	0.1	0.7	0.1	0.1	0.5	1.2	0.2	1.4	(Z)	(D)	(D)
Kansas.....	8	1	0.1	0.6	0.1	0.1	0.4	1.0	0.1	1.1	(Z)	(D)	(D)
South Atlantic.....	151	39	2.3	16.7	1.9	3.7	13.4	24.7	4.9	29.6	1.2	1.7	14.6
Maryland.....	38	13	0.7	6.0	0.6	1.3	5.0	9.0	1.2	10.2	0.4	0.5	4.8
District of Columbia	20	11	0.5	3.9	0.4	0.8	3.1	5.9	1.2	7.0	0.6	0.5	4.4
Virginia.....	16	3	0.3	1.7	0.2	0.5	1.4	2.3	1.1	3.4	0.1	0.1	1.1
Georgia.....	17	4	0.2	1.5	0.1	0.3	1.1	2.0	0.6	2.6	0.1	(D)	(D)
Florida.....	42	6	0.4	2.4	0.3	0.6	1.8	3.6	0.7	4.3	0.1	(D)	(D)
East South Central....	46	7	0.5	3.6	0.5	0.9	2.9	5.0	0.6	5.5	0.2	0.4	3.3
West South Central....	79	16	1.0	7.6	0.8	1.6	5.9	11.5	1.6	13.0	0.4	0.7	7.1
Louisiana.....	12	3	0.1	0.8	0.1	0.2	0.8	1.5	0.1	1.6	(D)	(D)	(D)
Texas.....	52	12	0.8	6.1	0.7	1.3	4.7	9.0	1.3	10.3	0.3	0.6	5.8
Mountain.....	32	4	0.3	1.9	0.2	0.4	1.5	2.7	0.8	3.5	0.2	(D)	(D)
Colorado.....	15	2	0.1	0.8	0.1	0.1	0.6	1.4	0.1	1.5	0.1	(D)	(D)
Arizona.....	7	1	0.1	0.7	0.1	0.2	0.6	0.7	0.6	1.3	0.1	(D)	(D)
Pacific.....	207	26	1.8	15.3	1.5	2.7	12.2	23.7	3.6	27.3	0.7	(D)	(D)
Washington.....	15	2	0.1	0.8	0.1	0.2	0.6	1.3	0.1	1.4	(Z)	0.1	1.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of receipts (million dollars)	
		1967	1963
2791- --	TYPESETTING		
27910 --	Typesetting.....	356.9	249.6
27910 11	Hot metal and related typesetting, including all hand and machine typesetting, composition and such other typographic services involving metal and not associated with photographic (film) typesetting or cold (typewriter) typesetting and their related processes.....	252.6	196.1
27910 13	Photographic typesetting, including phototypesetting, photolettering and such other typographic processes and services which employ photographic equipment and/or photographic materials and techniques.....	42.0	16.7
27910 15	Cold typesetting, including all nonmetallic, nonphotographic typesetting and composition normally produced by direct-impression of a typewriter mechanism, as well as subsequent associated procedures and related processes.....	18.7	14.8
27910 00	Typesetting, n.s.k. (For companies with 10 or more employees. See Note).....	23.6	22.0
27910 02	Typesetting, n.s.k. (For companies with less than 10 employees. See Note).....	20.0	

Note: In the 1967 Census of Manufactures data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2791, these small establishments accounted for approximately 4 percent of payrolls and 5 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES

INDUSTRY SERIES

preliminary  
report

## Photoengraving

SIC Code 2793

The Photoengraving Industry includes establishments primarily engaged in preparing photoengraving plates (halftones and line-cuts). These establishments do not, as a rule, print from the plates which they make, but prepare them for use by others.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of receipts of establishments classified in the Photoengraving Industry amounted to \$234.4 million, an increase of 10 percent compared with 1963. Value added by

manufacture at \$191.8 million in 1967 was 12 percent more than value added in 1963. Average employment in the industry showed a decrease of 10 percent from 1963 to a total of 13.2 thousand employees in 1967.

Of the \$234.4 million total value of receipts of establishments classified as photoengraving, \$14.3 million were products primary to other industries; and \$5.4 million were receipts for miscellaneous activities. The industry receipts from primary activities (photoengraving) represented 94 percent of the total receipts, both primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2793.—PHOTOENGRAVING													
1967 Census....	736	193	13.2	126.3	9.4	17.6	89.9	191.8	43.7	234.4	6.3	8.5	94	91
1966 ASM <sup>1</sup> .....	(NA)	(NA)	13.8	120.2	9.7	19.3	87.0	180.8	44.0	225.0	*5.4	4.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	13.9	118.1	9.9	19.5	84.9	172.0	44.8	217.1	*2.6	4.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	13.8	119.3	9.8	19.4	85.4	171.7	42.1	213.4	*1.3	5.4	(NA)	(NA)
1963 Census....	883	218	14.6	119.7	10.3	19.6	86.6	171.8	41.0	212.4	5.7	6.1	95	91
1962 ASM <sup>1</sup> .....	(NA)	(NA)	14.7	120.1	9.9	21.4	84.2	151.7	32.7	184.3	*1.6	6.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	14.7	116.3	10.0	20.9	81.3	142.8	29.9	175.2	*1.1	6.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	17.6	130.2	12.4	23.6	92.9	182.0	36.3	218.2	*3.5	6.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	17.3	126.7	12.2	23.0	91.4	176.7	35.4	212.1	*4.0	6.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	914	272	17.3	125.3	12.3	23.0	91.4	172.2	37.1	208.9	7.0	6.8	95	93

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 6 and 5, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

The total receipts for photengraving shipped by all producers in 1967 was \$236.4 million of which \$214.8 million, or 91 percent, were shipped by plants classified in industry 2793, Photoengraving, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was also 91 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2793.—PHOTOENGRAVING												
United States, total.....	736	193	13.2	126.3	9.4	17.6	89.9	191.8	43.7	234.4	6.3	14.6	171.8
New England.....	64	13	1.1	11.3	0.9	1.7	8.3	17.9	3.5	20.8	(D)	1.3	14.1
Connecticut.....	25	5	0.6	7.0	0.5	1.0	5.3	11.6	2.5	13.3	0.3	0.6	7.3
Middle Atlantic.....	171	62	5.0	50.9	3.5	6.8	36.2	77.0	17.7	94.5	2.7	5.4	64.8
New York.....	99	44	3.7	38.7	2.6	5.1	28.0	59.1	13.6	72.4	2.0	3.8	47.8
East North Central....	165	56	3.2	31.5	2.3	4.2	22.5	45.2	9.9	55.2	(D)	3.6	44.0
Illinois.....	61	22	1.5	15.0	1.1	2.1	11.2	21.5	4.7	26.2	0.7	1.7	21.2
Michigan.....	31	9	0.6	7.2	0.5	0.9	5.0	10.2	2.1	12.3	0.4	0.6	8.3
Wisconsin.....	16	4	0.2	2.1	0.1	0.3	1.5	2.8	0.7	3.5	0.1	0.2	2.2
West North Central....	48	7	0.6	5.4	0.4	0.8	3.7	7.8	1.7	9.5	(D)	0.8	1.9
Kansas.....	5	1	0.1	0.6	0.1	0.1	0.5	1.1	0.3	1.4	(Z)	0.1	0.9
South Atlantic.....	81	17	1.0	8.0	0.7	1.5	5.6	12.2	3.1	15.3	0.3	1.2	12.9
Virginia.....	14	4	0.2	1.8	0.2	0.4	1.5	2.9	0.7	3.6	0.1	0.3	3.8
North Carolina.....	13	4	0.2	1.2	0.1	0.2	0.8	1.7	0.5	2.2	(Z)	0.3	2.1
East South Central....	21	5	0.2	1.6	0.2	0.3	1.2	2.9	1.0	3.9	(D)	0.3	2.8
West.....	30	5	0.3	2.9	0.2	0.5	2.0	5.1	1.4	6.5	0.1	1.4	17.9
Arizona.....	6	1	0.1	0.5	—	0.1	0.4	0.9	0.2	1.2	0.1	(D)	(D)
Washington.....	9	2	0.1	0.7	—	0.1	0.4	0.9	0.3	1.2	—	(D)	(D)
Oregon.....	7	2	0.1	0.6	0.1	0.1	0.4	0.9	0.2	1.2	(D)	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

- Represents zero.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of receipts (million dollars)	
		1967	1963
2793- --	PHOTOENGRAVING		
27930 11	Photoengraving plates made for others.....	236.4	214.7

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2793, these small establishments accounted for approximately 3 percent of payrolls and 4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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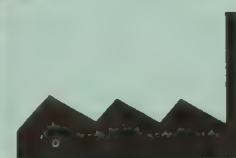
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-27C-6

## INDUSTRY SERIES

### Electrotyping and stereotyping

SIC Code 2794

preliminary  
report

The Electrotyping and Stereotyping Industry includes establishments primarily engaged in preparing electrotypes and stereotype plates. These establishments do not, as a rule, print from the plates which they make, but prepare them for use by others.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Electrotyping and Stereotyping Industry amounted to \$60.6 million, a decrease of 20 percent compared with 1963. Value added by manu-

facture at \$46.3 million in 1967 was 19 percent less than value added in 1963. Average employment in the industry showed a decrease of 31 percent from 1963 to a total of 3.5 thousand employees in 1967.

Of the \$60.6 million total value of shipments and other receipts of establishments classified as electrotyping and stereotyping, \$6.7 million were products primary to other industries; and \$3.3 million were receipts for miscellaneous activities. The industry shipments of primary products represented 88 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 87 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2794.--ELECTROTYPE AND STEREOTYPING													
1967 Census....	132	56	3.5	30.5	2.5	4.9	22.0	46.3	14.1	60.6	0.7	2.2	88	84
1966 ASM <sup>1</sup> .....	(NA)	(NA)	5.1	40.5	3.5	6.8	25.2	59.6	21.2	81.2	*0.8	3.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	5.1	41.3	3.7	7.2	26.0	57.9	20.8	79.0	*0.7	3.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	4.6	36.9	3.1	6.8	26.3	54.0	20.4	74.0	*0.9	4.5	(NA)	(NA)
1963 Census....	184	80	5.1	39.3	3.8	7.3	28.5	57.2	19.0	76.1	1.0	3.2	87	86
1962 ASM <sup>1</sup> .....	(NA)	(NA)	6.2	42.1	4.4	8.6	31.6	56.7	17.9	74.5	*0.7	2.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	6.4	44.3	4.7	9.1	32.2	60.1	18.2	78.2	*1.1	2.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	6.4	43.0	4.6	8.9	31.2	59.3	18.6	77.9	(S)	2.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	6.6	43.8	4.7	9.2	32.0	59.8	18.9	78.7	(S)	3.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	226	111	6.8	44.2	5.0	9.3	31.8	62.7	18.6	81.1	2.2	3.3	92	87

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

The total value of electrotyping and stereotyping shipped by all producers in 1967 was \$60.3 million of which \$50.6 million, or 84 percent, were shipped by plants classified in industry 2794, Electrotyping and Stereotyping, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 86 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2794.--ELECTROTYPING AND STEREOTYPING												
United States, total.....	132	56	3.5	30.5	2.5	4.9	22.0	46.3	14.1	60.6	0.7	5.1	57.2
New England.....	12	6	0.3	2.5	0.3	0.5	1.8	3.6	0.8	4.4	(D)	0.4	5.0
Middle Atlantic.....	38	17	1.2	10.8	0.8	1.6	8.1	15.5	4.2	19.7	0.2	1.7	18.3
New York.....	25	13	1.0	9.1	0.7	1.4	6.9	13.1	3.7	16.8	0.1	1.2	14.4
East North Central....	49	24	1.4	12.6	1.0	2.0	8.7	20.8	7.2	28.0	(D)	2.2	25.3
Illinois.....	15	9	0.8	7.3	0.5	1.1	5.1	12.7	4.1	16.9	0.3	1.1	14.4
Michigan.....	8	3	0.2	1.6	0.1	0.2	1.1	2.4	0.5	2.9	(Z)	0.4	5.0
West North Central....	9	3	0.1	0.9	0.1	0.2	0.5	1.2	0.4	1.6	(D)	0.2	1.7
South Atlantic.....	9	2	0.1	0.9	0.1	0.2	0.6	1.1	0.3	1.5	(Z)	(D)	(D)
East South Central....	5	2	0.2	1.9	0.2	0.4	1.4	2.5	0.7	3.2	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value (million dollars)	
		1967	1963
2794--	ELECTROTYPING AND STEREOTYPING, TOTAL.....	60.3	71.9
	Duplicate plates made for others:		
27940 11	Electrotypes.....	35.8	47.8
27940 31	Stereotypes.....	2.4	2.4
27940 51	Matrices.....	16.1	19.2
27940 00	Electrotyping, stereotyping, and matrices made for others, not reported separately (For companies with 10 or more employees. See Note.).....	5.1	2.5
27940 02	Electrotyping, stereotyping, and matrices made for others, not reported separately (For companies with less than 10 employees. See Note).....	0.9	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2794, these small establishments accounted for approximately 1 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Alkalies and chlorine

**preliminary  
report**

SIC Code 2812

The Alkalies and Chlorine Industry includes establishments primarily engaged in manufacturing alkalies and chlorine.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Alkalies and Chlorine Industry amounted to \$705.2 million, an increase of 8 percent compared with 1963. Value added by manufacture at \$406.6 million in 1967 was 4 percent

more than value added in 1963. Average employment in the industry showed a decrease of 6 percent from 1963 to a total of 18.6 thousand employees in 1967.

Of the \$705.2 million total value of shipments and other receipts of establishments classified as alkalies and chlorine, \$218.9 million were products primary to other industries; and \$22.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 68 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 66 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2812.-ALKALIES AND CHLORINE													
1967 Census....	44	40	18.6	150.5	12.5	24.8	91.1	406.6	300.2	705.2	92.7	69.4	68	75
1966 ASM <sup>1</sup> .....	(NA)	(NA)	19.9	154.0	13.4	27.5	97.8	467.0	319.6	782.7	81.2	69.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	20.0	148.2	13.5	26.8	92.1	442.8	291.4	735.4	57.7	65.3	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	19.9	145.3	13.8	28.1	92.3	436.0	276.2	711.6	49.4	66.0	(NA)	(NA)
1963 Census....	38	37	19.7	138.2	13.5	27.6	88.1	389.2	263.6	652.1	57.5	64.3	66	79
1962 ASM <sup>1</sup> .....	(NA)	(NA)	19.7	132.3	13.5	27.1	84.5	392.3	237.9	628.1	69.0	63.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	19.9	128.0	13.6	27.0	81.0	363.4	222.1	589.0	42.2	63.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	20.5	126.5	14.2	28.6	83.5	360.1	219.6	576.7	32.4	67.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	20.1	120.2	14.0	28.4	79.3	347.9	220.1	565.3	43.4	64.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	34	32	20.5	115.0	13.9	28.4	75.1	306.2	198.3	504.3	27.9	60.8	73	84

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

The total value of Alkalies and Chlorine shipped by all producers in 1967 was \$615.8 million of which \$464.2 million, or 75 percent, were shipped by plants classified in industry 2812, Alkalies and Chlorine, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 79 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2812, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M28A, Inorganic Chemicals and Gases for 1967.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2812.-ALKALIES AND CHLORINE													
United States, total.....	44	40	18.6	150.5	12.5	24.8	91.1	406.6	300.2	705.2	92.7	19.7	389.2
North Central.....	9	9	7.4	62.8	4.7	9.3	36.2	109.7	90.9	200.6	17.0	(D)	(D)
South.....	22	20	6.9	53.6	4.8	9.6	33.9	188.3	132.7	319.3	58.0	8.1	191.3
West South Central..	9	7	3.0	25.6	2.0	4.2	16.0	96.7	65.0	160.7	26.8	3.6	90.7
Pacific.....	6	5	1.6	14.7	0.9	1.7	7.1	48.0	33.1	81.9	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes  (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes  (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2812- --	ALKALIES AND CHLORINE, TOTAL: As reported in the census of manufactures..... As reported in Current Industrial Reports M28A.....	(X) (X)	(X) (X)	615.8 607.3	(X) (X)	(X) (X)	(X) (X)	(X) (X)	526.5 530.9	(X) (X)	(X) (X)
28121 --	Chlorine: As reported in the census of manufactures... As reported in Current Industrial Reports M28A.....	(X) (X)	(X) (X)	184.6 192.2	(X) (X)	(X) (X)	(X) (X)	(X) (X)	164.0 164.9	(X) (X)	(X) (X)
28121 11	Gas.....	<sup>1</sup> 7,679.9	554.4	26.9	369.4	17.1	<sup>1</sup> 5,464.1	426.6	23.1	316.9	16.7
28121 15	Liquid.....	3,943.4	3,249.4	165.3	3,024.1	153.0	2,920.1	2,447.8	141.8	2,193.0	126.8
28122 --	Sodium carbonate (soda ash), total: <sup>2</sup> As reported in the census of manufactures... As reported in Current Industrial Reports M28A.....	(X) (X)	(X) (X)	140.9 132.8	(X) (X)	(X) (X)	(X) (X)	(X) (X)	123.6 124.7	(X) (X)	(X) (X)
28122 51	Synthetic (58% Na <sub>2</sub> O): Total crude bicarbonate equivalent.....	<sup>3</sup> 4,848.9	(X)	(X)	(X)	(X)	<sup>3</sup> 4,681.8	(X)	(X)	(X)	(X)
28122 31	Finished sodium bicarbonate <sup>4</sup> .....	128.1	127.4	7.4	160.3	7.3	107.6	104.7	6.9	(D)	(D)
28122 41	Finished dense ash.....	2,592.1	2,527.4	74.7	2,394.1	69.9	2,183.5	2,155.7	64.4	(D)	(D)
28122 45	Finished light ash.....	<sup>5</sup> 2,105.7	1,738.3	50.7	1,527.3	45.2	<sup>5</sup> 2,277.7	1,788.1	53.3	1,555.8	46.2
28123 --	Sodium hydroxide (caustic soda), total: As reported in the census of manufactures... As reported in Current Industrial Reports M28A.....	(X) (X)	(X) (X)	252.9 245.4	(X) (X)	(X) (X)	(X) (X)	(X) (X)	209.7 212.6	(X) (X)	(X) (X)
28123 51	Total (all processes) (100% NaOH).....	<sup>6</sup> 7,906.1	(X)	(X)	(X)	(X)	<sup>6</sup> 5,814.4	(X)	(X)	(X)	(X)
28123 70											
28123 61	68-74% liquid <sup>7</sup> .....	912.5	689.3	29.9	638.2	27.8	978.7	898.3	42.3	826.0	39.0
28123 71											
28123 65	All other liquid <sup>7</sup> .....	6,589.4	4,177.4	173.4	3,725.4	152.1	4,232.7	2,853.7	128.6	2,464.0	110.2
28123 75											
28122 67	Dry (all forms) <sup>8</sup> .....	565.0	498.3	42.2	471.3	39.8	592.3	585.0	41.7	559.6	39.4
28122 77											
28124 --	Other alkalies: As reported in the census of manufactures... As reported in Current Industrial Reports M28A.....	(X) (X)	(X) (X)	35.2 36.9	(X) (X)	(X) (X)	(X) (X)	(X) (X)	27.6 28.7	(X) (X)	(X) (X)
	Potassium hydroxide (caustic potash) (88-92% KOH):										
28124 21	Total liquid.....	<sup>7</sup> 175.1	(X)	(X)	(X)	(X)	<sup>7</sup> 129.7	(X)	(X)	(X)	(X)
28124 22	Liquid.....	152.8	128.1	17.6	114.5	15.7	109.5	94.6	13.7	78.5	11.7
28114 23	Solid.....	22.2	21.1	4.5	(D)	(D)	20.2	20.4	3.9	20.2	3.9
28114 90	Other alkalies <sup>9</sup> .....	(X)	(X)	14.8	(X)	(X)	(X)	(X)	11.1	(X)	(X)
28120 00	Alkalies and chlorine, n.s.k., reported in the census of manufactures. (For companies with 10 or more employees. See Note).....	(X)	(X)	2.2	(X)	(X)	}	(X)	(X)	1.5	(X)
28120 02	Alkalies and chlorine, n.s.k., reported in the census of manufactures (For companies with less than 10 employees. See Note).....	(X)	(X)	(Z)	(X)	(X)					

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals. (X) Not applicable. (Z) Less than 0.1 when rounded.

<sup>1</sup>Includes quantities liquefied for use, storage, or shipment.

<sup>2</sup>Ammonia soda and caustic carbonation processes.

<sup>3</sup>Includes quantities used to manufacture caustic soda, finished sodium bicarbonate, finished light and dense soda ash, calcium carbonate, etc.

<sup>4</sup>Quantity figures reported in terms of soda ash processed to refined bicarbonate.

<sup>5</sup>Excludes quantities converted to finished dense soda ash.

<sup>6</sup>Includes quantities later evaporated to solid caustic and reported as such.

<sup>7</sup>Includes some liquid shipped as interplant transfers to other establishments for further processing to dry forms.

<sup>8</sup>Includes unspecified amounts produced from liquid caustic received from other establishments.

<sup>9</sup>Includes potassium carbonate, modified sodas, electrolytic soda ash, sodium carbonate (monohydrate) and sal soda and excludes products classified as alkaline detergents.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix. "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967				1963			
				Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)	Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)
					Quantity	Delivered cost (million dollars)			Quantity	Delivered cost (million dollars)	
	INDUSTRY 2812.-ALKALIES AND CHLORINE										
	Materials, containers, and supplies, total.....			(X)	(X)	175.5	(X)	(X)	(X)	159.3	(X)
	Inorganic chemicals:										
	Acids, except spent acids:										
281944	Hydrochloric acid.....	100% HCl..	1,000 short tons.....	99.3	(NA)	(NA)	(NA)	44.6	2.6	0.2	42.0
281931	Sulfuric acid.....	100% H <sub>2</sub> SO <sub>4</sub>	...do.....	(NA)	(NA)	(NA)	-	36.1	36.1	0.8	-
281912	Ammonia, synthetic, anhydrous...	100% NH <sub>3</sub> ..	...do.....	24.7	(D)	(D)	(D)	21.4	19.1	1.9	2.3
281211	Chlorine.....	100% Cl <sub>2</sub> ..	...do.....	429.7	(D)	(D)	(D)	271.8	(D)	(D)	(D)
281228	Sodium carbonate (soda ash).....	58% Na <sub>2</sub> O..	...do.....	371.0	(NA)	(NA)	(NA)	599.0	30.5	1.0	568.5
281238	Sodium hydroxide (caustic soda)...	100% NaOH.	...do.....	341.4	(D)	(D)	(D)	159.8	(D)	(D)	(D)
	Organic chemicals:										
281552	Benzol (benzene).....	100% C <sub>6</sub> H <sub>6</sub> .	Million lbs.	52.5	52.5	2.3	-	65.2	65.2	2.9	-
	Used as raw materials:										
331210	Coke, including breeze.....		1,000 short tons.....	318.0	318.0	6.3	-	243.3	243.3	4.2	-
131302	Natural gas.....		Mil. cu. ft.	5,888	5,888	1.4	-	7,392	7,392	1.1	-
970099	All other materials and components, containers, and supplies			(X)	(X)	155.1	(X)	(X)	(X)	145.8	(X)
976000	Materials, containers, supplies, n.s.k.....			(X)	(X)	<sup>1</sup> 10.4	(X)	(X)	(X)	<sup>1</sup> 1.2	(X)

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2812, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES

## INDUSTRY SERIES

### Industrial gases

SIC Code 2813

preliminary  
report

MC67(P)-28A-2

The Industrial Gases Industry includes establishments primarily engaged in the manufacturing of gases for sale in compressed, liquid, and solid forms. Establishments primarily engaged in manufacturing fluorine, ammonia, and sulfur dioxide are classified in industry 2819; and chlorine in industry 2812. Distributors of industrial gases and establishments primarily engaged in shipping liquid oxygen are classified in trade.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Industrial Gases Industry amounted to \$589.7 million, an increase of 39 percent compared with 1963. Value added by manufacture at \$401.5 million in 1967 was 54 percent more than value added in 1963. Average employment in the industry showed an increase of 5 percent from 1963 to a total of 10.3 thousand employees in 1967.

Of the \$589.7 million total value of shipments and other receipts of establishments classified as industrial gases, \$47.0 million were products primary to other industries; and \$66.0 million were receipts for miscellaneous activities. The

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2813.—INDUSTRIAL GASES													
1967 Census....	509	157	10.3	78.8	5.3	11.1	36.6	401.5	189.2	589.7	123.9	21.3	91	89
1966 ASM <sup>1</sup> .....	(NA)	(NA)	9.9	74.6	4.9	10.5	34.5	363.1	190.4	549.7	97.0	18.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.1	72.2	5.3	11.2	35.2	346.7	194.2	540.0	63.8	16.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	10.2	72.7	5.6	11.7	37.2	309.0	199.5	507.3	73.4	16.3	(NA)	(NA)
1963 Census....	456	146	9.8	66.6	5.2	11.1	33.5	260.2	164.4	425.4	93.5	15.3	98	87
1962 ASM <sup>1</sup> .....	(NA)	(NA)	9.9	63.3	5.6	11.7	32.9	225.8	156.4	382.3	94.0	13.3	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	10.3	59.5	5.8	11.5	32.0	221.8	140.0	362.2	94.0	13.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	10.5	61.0	5.9	12.4	32.4	212.4	131.6	344.1	42.6	14.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	10.2	56.4	5.7	11.9	30.2	196.7	118.7	315.1	39.5	13.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	491	177	10.6	56.7	5.8	12.7	30.6	174.2	103.5	277.4	48.6	13.5	99	85

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

William H. Chartener, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS A. Ross Eckler, Director

industry shipments of primary products represented 91 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 98 percent in 1963.

The total value of industrial gases shipped by all producers in 1967 was \$537.2 million of which \$476.7 million, or 89 percent, were shipped by plants classified in industry 2813, Industrial Gases, while the remainder was shipped by plants

classified in other industries. This percent, called the coverage ratio, was 87 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2813, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M28A, Inorganic Chemicals and Gases.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total  (number)	With 20 employees or more (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)						
INDUSTRY 2813.—INDUSTRIAL GASES													
United States, total.....	509	157	10.3	78.8	5.3	11.1	36.6	401.5	189.2	589.7	123.9	9.8	260.2
Pennsylvania.....	42	14	1.0	7.7	0.6	1.2	4.2	34.9	15.6	50.6	10.3	1.1	27.3
East North Central....	107	34	2.2	18.0	1.1	2.2	7.8	103.0	37.5	140.4	34.0	2.1	61.6
Ohio.....	49	13	0.9	6.9	0.4	0.9	2.7	37.4	15.2	52.5	(D)	0.9	27.7
Indiana.....	13	7	0.4	3.5	0.3	0.5	2.0	20.0	7.4	27.3	(D)	(D)	(D)
Illinois.....	24	8	0.5	4.8	0.2	0.5	1.8	35.0	9.0	43.9	9.6	0.4	19.9
Michigan.....	15	6	0.3	2.5	0.1	0.3	1.2	9.8	5.2	15.0	0.7	0.2	5.5
West North Central....	37	11	0.7	5.3	0.3	0.7	2.5	42.1	22.8	65.0	9.4	0.6	17.7
Missouri.....	9	2	0.1	0.8	0.1	0.1	0.4	2.8	1.4	4.2	(D)	0.2	5.6
South Atlantic.....	56	17	1.0	7.0	0.5	1.0	3.0	38.7	16.3	55.3	25.8	1.1	28.5
Georgia.....	8	4	0.2	1.3	0.1	0.2	0.5	2.1	2.2	4.9	(D)	0.2	2.6
East South Central....	34	10	1.1	7.8	0.7	1.3	4.3	33.4	26.8	60.2	7.8	1.0	20.7
Alabama.....	9	3	0.2	1.7	0.1	0.2	0.7	8.8	5.0	13.7	1.1	0.2	5.2
West South Central....	70	19	1.0	7.3	0.4	1.0	3.1	36.0	19.6	55.2	5.1	0.9	23.5
Pacific.....	63	25	1.7	13.0	1.0	2.0	6.6	59.8	24.1	83.4	(D)	1.6	44.9
California.....	41	18	1.1	9.2	0.7	1.5	5.1	47.3	19.0	66.0	16.3	1.1	37.2

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
2813- --	INDUSTRIAL GASES, TOTAL:							
	As reported in the census of manufactures.....		(X)	(X)	<sup>1</sup> 537.2	(X)	(X)	<sup>1</sup> 389.6
	As reported in Current Industrial Reports M28A.....		(X)	(X)	<sup>1</sup> 538.3	(X)	(X)	<sup>1</sup> 394.0
28132 --	Acetylene:							
28132 00	As reported in the census of manufactures.....	Mil. cu. ft.	(X)	(X)	83.2	(X)	(X)	93.5
	As reported in Current Industrial Reports M28A.....	..do.....	<sup>2</sup> 14,269	8,176	87.2	<sup>2</sup> 14,730	8,878	94.6
28133 --	Carbon dioxide, total:							
28133 00	As reported in the census of manufactures.....	1,000 short tons.....	(X)	(X)	48.0	(X)	(X)	49.9
	As reported in Current Industrial Reports M28A.....	..do.....	1,085.3	971.4	47.4	976.7	877.9	48.9
28133 11	Liquid and gas.....	..do.....	<sup>3</sup> 717.2	618.9	29.4	<sup>3</sup> 542.5	463.4	27.8
28133 31	Solid (dry ice).....	..do.....	368.1	352.5	18.0	434.2	414.5	21.1
28134 --	Elemental gases and compressed and liquefied gases, n.e.c., total:							
28134 00	As reported in the census of manufactures.....		(X)	(X)	<sup>4</sup> 406.0	(X)	(X)	<sup>4</sup> 244.6
	As reported in Current Industrial Reports M28A.....		(X)	(X)	<sup>4</sup> 403.7	(X)	(X)	<sup>4</sup> 250.5
28134 15	Argon, high purity (99.97-100%).....	Mil. cu. ft.	1,910	1,910	25.3	970	968	18.1
	Shipped as gas.....	..do.....	(X)	294	9.3	(X)	251	9.7
	Shipped as liquid.....	..do.....	(X)	1,616	16.0	(X)	717	8.4
	Helium..... <sup>4</sup>	..do.....	4,770	907	(NA)	2,232	662	(NA)
	Hydrogen, total.....	..do.....	<sup>5</sup> 157,885	27,662	37.1	<sup>5</sup> 95,608	19,948	25.7
	High purity, total.....	..do.....	34,094	25,603	36.4	22,667	15,656	24.6
28134 23	Electrolytic process.....	..do.....	14,374	9,693	11.2	12,553	(D)	(D)
28134 25	From other sources.....	..do.....	19,720	15,910	25.2	10,114	(D)	(D)
28134 27	Lower purity (less than 99.5%) (100% basis)....	..do.....	123,791	2,059	0.7	72,941	4,292	1.1
28134 43	Nitrogen, high purity (99.5-100%).....	..do.....	<sup>6</sup> 103,938	91,940	93.3	<sup>6</sup> 50,885	44,035	40.0
	Shipped as gas.....	..do.....	(X)	53,073	25.2	(X)	27,494	13.7
	Shipped as liquid.....	..do.....	(X)	38,867	68.1	(X)	16,541	26.3
	Oxygen, high purity (99.5-100%), total.....	..do.....	243,401	233,587	188.9	128,544	119,016	136.4
	Shipped as gas.....	..do.....	(X)	189,593	108.3	(X)	89,983	89.2
	Shipped as liquid.....	..do.....	(X)	43,994	80.6	(X)	29,033	47.2
28134 51	Electrolytic.....	..do.....	408	319	1.3	646	498	2.4
28134 54	Liquefaction.....	..do.....	242,995	233,268	187.6	127,898	118,518	134.0
28134 57	Oxygen, lower purity.....	1,000 short tons.....	<sup>7</sup> 1,972.0	(D)	( <sup>8</sup> )	<sup>7</sup> 1,942.6	(D)	( <sup>8</sup> )
28134 71	Nitrous oxide.....	Million gals. (STP).....	953.1	953.6	4.4	729.0	727.7	4.8
28134 98	Other industrial gases, n.e.c., including lower purity nitrogen, crude argon, and crude and high purity helium produced in privately owned plants <sup>9</sup> .....		(X)	(X)	<sup>8</sup> 54.7	(X)	(X)	<sup>8</sup> 25.5
28130 00	Industrial gases, n.s.k. (reported in the census of manufactures).....		(X)	(X)	21.2	(X)	(X)	1.6

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher level totals or from related figures. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Excludes value for helium produced in government owned plants.<sup>2</sup>Excludes information from railroad shops, shipyards, welding shops, and small establishments using portable generators.<sup>3</sup>Excludes production of liquid and gas carbon dioxide converted to and reported as dry ice and also amounts converted from pure carbon dioxide (liquid or solid) purchased or received from other plants. Also excludes quantities produced and consumed in plants manufacturing soda ash or urea, and quantities produced and transferred to other plants where it is further processed.<sup>4</sup>Source: U.S. Department of Interior, Bureau of Mines.<sup>5</sup>Excludes amounts vented, used as fuel, etc., and amounts produced and consumed in the manufacture of synthetic ammonia and methanol, but includes an unspecified amount produced for sale or interplant transfer to plants consuming this gas in the production of ammonia. Also excludes amounts produced by the ammonia dissociation process (cracking of ammonia). Includes amounts of hydrogen produced by some, but not all, petroleum refineries producing hydrogen from catalytic reforming operations.<sup>6</sup>Excludes amounts produced and consumed in the manufacture of synthetic ammonia or ammonia derivatives.<sup>7</sup>Excludes amounts produced and used in the manufacture of ammonia.<sup>8</sup>Code 2813457 combined with 2813498.<sup>9</sup>Excludes hydrocarbon gases such as propane, butane, and propylene, or halogenated hydrocarbons and cyclopropane, which are reported to the U.S. Tariff Commission. Also excludes sulfur dioxide and chlorine, figures for which are shown in Current Industrial Reports Series M28A(67)-13, Inorganic Chemicals and Gases.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)



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In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2813, these small establishments accounted for approximately 0.4 percent of payrolls and 0.2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

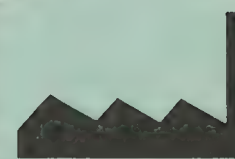
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-28A-3

## INDUSTRY SERIES

### Cyclic intermediates and crudes

SIC Code 2815

preliminary  
report

The Cyclic Intermediates Dyes, Organic Pigments (Lakes and Toners), and Cyclic (Coal Tar) Crudes Industry includes establishments primarily engaged in manufacturing cyclic organic intermediates, dyes, color lakes and toners, and coal tar crudes. Important products of this industry include: (1) derivatives of benzene, toluene, naphthalene, anthracene, pyridine, carbazole, and other cyclic chemical products; (2) synthetic organic dyes; (3) synthetic organic pigments, and (4) cyclic (coal tar) crudes, such as light oils and light oil products; coal tar acids; and products of medium and heavy oil such as creosote oil, naphthalene, anthracene, and their higher homologues, and tar. Establishments primarily engaged in manufacturing coal tar crudes in chemical recovery ovens are classified in industry 3312, and petroleum re-

fineries which produce such products in industry 2911. Prior to 1967, cyclic (coal tar) crudes were classified as industry 2814.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Cyclic Intermediates and Crudes Industry amounted to \$1,586.4 million, an increase of 31 percent compared with 1963. Value added by manufacture at \$723.8 million in 1967 was 20

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							

	INDUSTRY 2815.—CYCLIC INTERMEDIATES AND CRUDES													
1967 Census....	176	108	30.1	252.0	20.5	41.9	153.5	723.8	869.8	1,586.4	135.9	261.4	72	65
1966 ASM <sup>1</sup> .....	(NA)	(NA)	29.2	240.4	20.1	42.6	150.1	741.7	826.3	1,556.3	88.4	247.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	29.6	232.3	19.9	41.6	141.9	682.3	788.5	1,456.3	91.9	232.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	28.2	211.3	18.7	38.5	128.5	621.1	668.3	1,289.6	103.5	209.0	(NA)	(NA)
1963 Census....	141	84	27.7	201.9	18.9	38.6	124.8	605.3	634.1	1,212.8	106.8	211.0	(NA)	(NA)
1962 ASM <sup>1</sup> .....	(NA)	(NA)	26.7	186.7	18.3	37.1	115.8	529.8	619.0	1,152.0	80.3	174.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	27.8	187.0	18.9	38.9	117.4	529.6	609.3	1,136.2	69.6	189.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	29.1	186.6	20.1	40.4	118.3	515.3	626.2	1,127.2	98.9	183.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	29.1	180.9	20.4	41.9	116.6	513.6	603.4	1,114.8	73.3	170.1	(NA)	(NA)
1958 Census <sup>2</sup> ....	115	87	28.3	167.4	19.6	39.0	106.3	403.1	524.8	934.4	78.0	169.4	(NA)	(NA)

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
BUREAU OF THE CENSUS

percent more than value added in 1963. Average employment in the industry showed an increase of 9 percent from 1963 to a total of 30.1 thousand employees in 1967.

Of the \$1,586.4 million total value of shipments and other receipts of establishments classified as cyclic intermediates and crudes, \$422.0 million were products primary to other industries; and \$91.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 72 percent of the total manufactured product shipments, primary and secondary.

The total value of cyclic intermediates and crudes shipped by all producers in 1967 was \$1,636.5 million of which \$1,073.0 million, or 65 percent, were shipped by plants classified in industry 2815, Cyclic Intermediates and Crudes, while the remainder was shipped by plants classified in other industries.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2815.—CYCLIC INTERMEDIATES AND CRUDES												
United States, total.....	176	108	30.1	252.0	20.5	41.9	153.5	723.8	869.8	1,586.4	135.9	201.9	605.3
New England.....	16	8	0.9	6.5	0.6	1.3	3.9	19.8	20.9	40.6	9.5	(D)	(D)
Middle Atlantic.....	77	45	15.5	130.3	10.3	21.3	78.3	322.6	345.5	667.7	33.5	(D)	(D)
New York.....	18	7	3.1	24.4	2.1	4.4	14.7	44.5	46.5	91.7	5.1	(D)	(D)
New Jersey.....	43	31	10.0	87.6	6.9	14.0	53.6	232.0	231.9	436.4	24.5	(D)	(D)
Pennsylvania.....	16	7	2.3	18.3	1.4	2.9	9.9	46.1	67.2	112.7	3.9	(D)	(D)
North Central.....	31	22	6.4	53.9	4.5	9.2	33.9	154.2	191.1	342.8	29.0	(D)	(D)
South Atlantic.....	20	14	3.6	29.6	2.5	5.1	17.1	86.8	106.8	191.9	19.8	(D)	(D)
West Virginia.....	7	5	1.8	14.2	1.4	2.8	9.9	43.0	51.7	95.3	(D)	(D)	(D)
East South Central....	10	7	1.2	8.5	0.9	1.8	5.4	51.7	60.8	111.0	(D)	(D)	(D)
West South Central....	13	10	2.2	20.9	1.5	3.0	13.6	80.0	133.3	212.5	(D)	(D)	(D)
West.....	9	4	0.3	2.3	0.2	0.4	1.3	8.7	11.5	19.9	1.0	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Value of Shipments by All Producers: 1967 and 1963

(Includes value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Total shipments including interplant transfers (million dollars)	Commercial shipments only (million dollars)	Interplant transfers only (million dollars)	Total shipments including interplant transfers (million dollars)	Commercial shipments only (million dollars)	Interplant transfers only (million dollars)
2815- --	CYCLIC INTERMEDIATES AND CRUDES, TOTAL.....	<sup>1</sup> 1,636.5	(X)	(X)	<sup>1</sup> 1,195.1	(X)	(X)
28151 11	Cyclic (coal tar) intermediates <sup>2</sup> .....	<sup>1</sup> 1,050.9	780.5	270.5	<sup>1</sup> 758.6	548.2	210.3
28152 11	Synthetic organic dyes.....	<sup>1</sup> 327.0	324.1	2.9	<sup>1</sup> 243.1	227.1	16.0
28153 11	Synthetic organic pigments, lakes, and toners.....	<sup>1</sup> 158.8	129.0	29.7	<sup>1</sup> 111.6	84.3	27.4
28155 11	Cyclic (coal tar) crudes.....	<sup>1</sup> 87.6	77.9	9.7	<sup>1</sup> 79.3	(D)	(D)
28150 00	Intermediate coal tar products, n.s.k. (For companies with 10 or more employees. See Note.).....	11.4	(X)	(X)	2.5	(X)	(X)
28150 02	Intermediate coal tar products, n.s.k. (For companies with less than 10 employees. See Note.).....	0.8	(X)	(X)	(X)	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Data for quantities produced and values shipped for many of the synthetic organic chemicals included in this grouping are shown in the United States Tariff Commission's Annual Report "Synthetic Organic Chemicals, United States Production and Sales."

<sup>2</sup>Represents values reported by tar distillers and excludes shipment values for tar, tar crudes, and for pitches reported by establishments classified in industry 3312, Blast Furnaces and Steel Mills, and industry 2911, Petroleum Refining.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967				1963			
				Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)	Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)
					Quantity	Delivered cost (million dollars)			Quantity	Delivered cost (million dollars)	
	INDUSTRY 2815.-CYCLIC INTERMEDIATES AND CRUDES										
	Materials, containers, and supplies, total.....			(X)	(X)	738.4	(X)	(X)	(X)	483.4	(X)
	Inorganic chemicals:										
	Acids, except spent acids:										
281944	Hydrochloric acid.....	100% HCl...	1,000 short tons.....	(NA)	(NA)	(NA)	(NA)	79.5	57.6	3.8	21.9
281911	Nitric acid.....	100% HNO <sub>3</sub> ...	...do.....	288.9	65.9	4.2	223.0	271.3	46.0	3.1	225.4
281931	Sulfuric acid.....	100% H <sub>2</sub> SO <sub>4</sub> ...	...do.....	457.5	174.0	5.6	283.5	602.4	266.8	6.0	335.7
281912	Ammonia synthetic anhydrous.....	100% NH <sub>3</sub> ...	...do.....	130.5	60.5	3.5	70.0	126.7	56.0	3.9	70.7
281211	Chlorine.....	100% Cl <sub>2</sub> ...	...do.....	324.5	211.1	11.0	113.4	242.3	165.6	9.2	76.7
281228	Sodium carbonate (ash soda).....	58% Na <sub>2</sub> O...	...do.....	(NA)	(NA)	(NA)	(NA)	43.9	43.9	1.8	-
281238	Sodium hydroxide (caustic soda).....	100% NaOH...	...do.....	229.4	140.0	7.9	89.4	266.5	182.9	10.7	83.6
	Organic chemicals:										
281852	Alcohol, ethyl (pure and denatured).....			(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	0.6	-
281820	Other alcohols, including amyl, butyl, methyl and propyl.....		Million gals.	86.1	86.1	10.5	-	(NA)	(NA)	11.0	(NA)
281511	Aniline.....	100%.....	Million lbs.	54.3	54.3	6.5	-	22.5	22.5	3.4	-
281401	Benzol (benzene).....	100% C <sub>6</sub> H <sub>6</sub> ...	...do.....	1,381.8	1,373.6	48.1	8.3	1,200.4	1,163.1	38.0	37.4
281823	Formaldehyde.....	37% HCHO...	...do.....	(NA)	(NA)	(NA)	(NA)	13.5	13.5	0.5	-
	Liquefied petroleum and refinery gases for chemical feedstocks:										
291165	Ethylene.....		...do.....	(D)	(D)	(D)	(D)	647.3	550.2	22.8	97.1
291166	Propylene.....		...do.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	0.7	-
291169	Other.....		...do.....	(NA)	(NA)	19.4	(NA)	(NA)	(NA)	11.0	(NA)
281555	Naphthalene grades of 77.5°C or higher.....		Million lbs.	245.2	(D)	(D)	(D)	134.1	68.9	4.3	65.2
281512	Nitrobenzene.....	100%.....	...do.....	213.4	8.9	0.7	204.6	212.2	4.7	0.4	207.5
281513	Phenol.....	100%.....	...do.....	71.2	20.0	2.0	51.2	48.4	15.9	1.9	32.5
281514	Phthalic anhydride.....	100%.....	...do.....	51.3	18.9	2.3	32.4	30.4	16.0	1.7	14.4
281553	Tar, crude.....		1,000 short tons.....	1,236.0	1,236.0	28.4	-	1,315.1	1,315.1	29.9	-
147701	Crude materials:										
	Sulfur.....		1,000 Long tons.....	180.0	180.0	6.5	-	196.5	196.5	4.5	-
333348	Zinc and zinc-base alloy refinery shapes.....		1,000 short tons.....	(NA)	(NA)	(NA)	(NA)	1.7	1.7	0.6	-
	Used as raw materials:										
291101	Fuel oil.....		1,000 bbls. (42 gal.)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	0.2	-
131302	Natural gas.....		Mil. cu. ft.	(NA)	(NA)	6.8	(NA)	(NA)	(NA)	7.4	-
970099	All other materials and components, parts, containers, and supplies consumed.....			(X)	(X)	533.5	(X)	(X)	(X)	348.9	(X)
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....			(X)	(X)	41.5	(X)	(X)	(X)	18.0	(X)

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2815, these small establishments accounted for approximately 0.1 percent of payrolls and 0.1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



1967 CENSUS OF  
MANUFACTURES

## INDUSTRY SERIES

## Inorganic pigments

SIC Code 2816

preliminary  
report

The Inorganic Pigments Industry includes establishments primarily engaged in manufacturing inorganic pigments. Important products of this industry include black pigments (except carbon black, industry 2895), white pigments and color pigments. Organic color pigments, except animal black and bone black, are classified in industry 2815.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Inorganic Pigments Industry amounted

to \$549.3 million, an increase of 13 percent compared with 1963. Value added by manufacture at \$316.3 million in 1967 was 10 percent more than value added in 1963. Average employment in the industry showed an increase of 10 percent from 1963 to a total of 12.6 thousand employees in 1967.

Of the \$549.3 million total value of shipments and other receipts of establishments classified as inorganic pigments, \$55.1 million were products primary to other industries; and \$23.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 90 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 91 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expend- itures, new (million dollars)	End-of- year inven- tories (million dollars)	Special- ization ratio (per- cent)	Coverage ratio (per- cent)
	Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)							
INDUSTRY 2816.--INORGANIC PIGMENTS														
1967 Census....	98	60	12.6	97.2	8.9	17.7	63.2	316.3	235.0	549.3	20.8	112.1	90	83
1966 ASM <sup>1</sup> .....	(NA)	(NA)	12.7	96.2	9.0	18.2	63.5	339.9	247.6	581.8	17.2	112.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	12.4	88.5	8.8	17.4	57.5	331.3	226.5	553.6	48.5	103.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	12.3	88.4	8.7	17.7	58.7	334.9	216.2	548.1	43.4	93.6	(NA)	(NA)
1963 Census....	96	49	11.5	76.4	8.1	16.2	49.9	286.4	194.2	484.8	17.4	86.6	91	87
1962 ASM <sup>1</sup> .....	(NA)	(NA)	12.4	83.5	8.7	18.2	53.4	302.4	192.3	489.9	*20.8	105.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	12.0	79.1	8.2	17.4	49.0	296.5	192.7	482.7	15.9	96.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	12.6	78.9	8.6	18.5	49.6	285.0	197.7	486.7	*24.7	94.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	12.3	73.9	8.7	18.1	47.9	292.7	210.7	492.3	20.6	91.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	99	57	11.4	61.9	8.0	16.0	40.9	235.7	172.2	417.7	42.9	82.1	92	89

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of inorganic pigments shipped by all producers in 1967 was \$564.4 million of which \$470.8 million, or 83 percent, were shipped by plants classified in industry 2816, Inorganic Pigments, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 87 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2816, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M28A, Inorganic Chemicals and Gases for 1967.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2816.--INORGANIC PIGMENTS												
United States, total.....	98	60	12.6	97.2	8.9	17.7	63.2	316.3	235.0	549.3	20.8	11.5	286.4
New England.....	8	2	0.2	0.9	0.1	0.3	0.8	2.6	2.7	5.3	0.1	(D)	(D)
Middle Atlantic.....	34	22	5.1	39.2	3.7	7.2	26.1	119.7	73.3	193.6	6.3	(D)	(D)
Pennsylvania.....	10	8	1.2	8.2	0.9	1.8	5.0	22.0	19.7	43.6	2.2	1.3	24.7
North Central.....	24	17	3.3	25.8	2.5	4.9	18.1	85.3	68.3	150.9	7.9	3.1	68.9
South.....	20	15	3.6	29.1	2.3	4.8	16.9	100.7	81.7	182.9	5.9	(D)	(D)
West.....	12	4	0.3	2.2	0.2	0.4	1.4	8.0	9.0	16.6	0.5	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2816- --	INORGANIC PIGMENTS, TOTAL.....	(X)	(X)	564.4	(X)	(X)	(X)	(X)	480.4	(X)	(X)
28161 11	Titanium pigments, composite and pure (100% TiO <sub>2</sub> ): <sup>1</sup>										
	As reported in the census of manufactures...	(X)	(X)	298.4	(X)	(X)	(X)	(X)	277.3	(X)	(X)
	As reported in Current Industrial Reports M28A.....	589.4	582.3	297.3	542.5	277.3	519.5	528.4	278.5	486.5	257.5
28162 --	Other white opaque pigments, total.....	(X)	(X)	65.3	(X)	(X)	(X)	(X)	50.4	(X)	(X)
28162 13	White lead, excluding white lead in oil (basic carbonate and sulfate).....	13.8	9.9	3.8	(X)	(X)	15.0	12.1	4.0	(X)	(X)
	Zinc oxide pigments:										
28162 21	Lead-free zinc oxide.....	(S)	(S)	46.9	(X)	(X)	150.9	147.8	33.8	(X)	(X)
28162 25	Leaded zinc oxide.....	(S)	(S)	2.6	(X)	(X)	15.9	15.5	3.6	(X)	(X)
28162 98	All other white opaque pigments, including antimony oxide, lithopone, and pure zinc sulfide.....	(X)	(X)	12.0	(X)	(X)	(X)	(X)	9.0	(X)	(X)
28162 00	Other white opaque pigments, n.s.k.....	(X)	(X)	-	(X)	(X)	-	-	-	(X)	(X)
28163 --	Chrome colors and other inorganic pigments, total.....	(X)	(X)	193.0	(X)	(X)	(X)	(X)	151.8	(X)	(X)
	Chrome colors:										
28163 10	As reported in the census of manufactures...	(X)	(X)	42.0	(X)	(X)	(X)	(X)	(NA)	(X)	(X)
	As reported in Current Industrial Reports M28A, total.....	(X)	(X)	41.9	(X)	(X)	(X)	(X)	20.2	(X)	(X)
28163 11	Chrome green (chrome yellow and iron blue) (C.P.) <sup>1</sup> .....	2.7	2.7	2.4	(D)	(D)	2.9	2.9	2.2	(D)	(D)
28163 13	Chrome oxide green (C.P.) <sup>1</sup> .....	5.2	5.4	5.2	(D)	(D)	5.2	5.3	4.6	(D)	(D)
28163 15	Chrome yellow and orange (C.P.) <sup>1</sup> .....	30.7	29.8	20.5	26.9	18.5	24.7	24.5	15.1	22.0	13.4
28163 17	Molybdate chrome orange (C.P.) <sup>1</sup> .....	10.4	10.1	9.5	9.3	8.7	8.4	8.0	8.2	(D)	(D)
28163 18	Zinc yellow (zinc chromate) (C.P.) <sup>1</sup> .....	7.8	7.6	4.3	(D)	(D)	6.9	6.7	3.2	(D)	(D)
28163 27	White extender pigments, including barytes, blanc fixe, and whiting.....	212.7	212.8	5.8	(X)	(X)	(S)	(S)	6.0	(X)	(X)
	Color pigments other than chrome colors and lakes and toners:										
28163 31	Iron oxide pigments.....	(S)	(S)	35.2	(X)	(X)	109.2	111.3	20.8	(X)	(X)
	Colored lead pigments:										
28163 41	Red lead.....	(S)	(S)	8.9	(X)	(X)	23.8	23.5	6.2	(X)	(X)
28163 45	Litharge.....	(S)	(S)	30.5	(X)	(X)	111.6	104.2	26.6	(X)	(X)
28163 51	Iron blues (Prussian blues, milori blue, etc.) <sup>1</sup> .....	(S)	(S)	5.8	(D)	(D)	5.0	4.5	4.9	(D)	(D)
28163 61	Pearl essence.....	(S)	(S)	2.9	(X)	(X)	(S)	(S)	3.0	(X)	(X)
28163 88	Carbon blacks (bone and lamp) excluding furnace and channel carbon black and charcoal.....	(S)	(S)	( <sup>2</sup> )	(X)	(X)	(S)	(S)	4.4	(X)	(X)
28163 91	Ceramic colors.....	43.8	44.0	24.4	(X)	(X)	(X)	(X)	25.6	(X)	(X)
28163 98	All other color pigments, including ultramarine blue, excluding organic pigments, lakes, and toners.....	(X)	(X)	235.0	(X)	(X)	(X)	(X)	18.7	(X)	(X)
28163 00	Chrome colors and other inorganic pigments, n.s.k.....	(X)	(X)	2.5	(X)	(X)	(X)	(X)	2.2	(X)	(X)
28160 00	Inorganic color pigments, n.s.k. (For companies with 10 or more employees. (See Note.).....	(X)	(X)	5.7	(X)	(X)	(X)	(X)	0.9	(X)	(X)
28160 02	Inorganic color pigments, n.s.k. (For companies with less than 10 employees. (See Note.).....	(X)	(X)	2.0	(X)	(X)	(X)	(X)	(X)	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>Source of data: Current Industrial Reports Series M28A, Inorganic Chemicals and Gases.

<sup>2</sup>Code 28163 88 included in 28163 98 for 1967.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2816, these small establishments accounted for approximately 0.2 percent of payrolls and 0.3 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

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these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES

MC67(P)-28A-5

## INDUSTRY SERIES

### Industrial organic chemicals, n.e.c.

SIC Code 2818

preliminary  
report

The Industrial Organic Chemicals, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing industrial organic chemicals, not elsewhere classified. Important products of this industry include: (1) non-cyclic organic chemicals such as acetic, chloroacetic, adipic, formic, oxalic and tartaric acids and their metallic salts; chloral, formaldehyde and methylamine; (2) solvents such as amyl, butyl, and ethyl alcohols; methanol; amyl, butyl and ethyl acetates; ethyl ether, ethylene glycol ether and diethylene glycol ether; acetone, carbon disulfide and chlorinated solvents such as carbon tetrachloride, perchloroethylene and trichloroethylene; (3) polyhydric alcohols such as ethylene glycol, sorbitol, pentaerythritol, synthetic glycerine; (4) synthetic perfume and flavoring materials such as coumarin, methyl salicylate,

saccharin, citral, citronellal, synthetic geraniol, ionone, terpeneol, and synthetic vanillin; (5) rubber processing chemicals such as accelerators and antioxidants, both cyclic and acyclic; (6) plasticizers, both cyclic and acyclic, such as esters of phosphoric acid, phthalic anhydride, adipic acid, lauric acid, oleic acid, sebacic acid, and stearic acid; (7) synthetic tanning agents such as naphthalene sulfonic acid condensates; (8) chemical warfare gases; and (9) esters, amines, etc., of polyhydric alcohols and fatty and other acids.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classi-

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2818.--INDUSTRIAL ORGANIC CHEMICALS, N. E. C.													
1967 Census....	489	268	95.3	850.3	62.2	126.6	501.2	3,579.1	2,866.0	6,417.1	724.8	796.9	75	81
1966 ASM <sup>1</sup> .....	(NA)	(NA)	95.7	833.4	63.6	129.0	491.6	3,641.5	2,953.1	6,541.1	886.2	770.1	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	91.6	768.0	61.3	125.2	462.5	3,471.7	2,615.7	6,012.5	641.2	687.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	87.1	714.0	57.0	117.5	428.6	2,990.9	2,297.1	5,265.3	496.4	587.0	(NA)	(NA)
1963 Census....	464	241	85.5	677.3	56.4	114.4	405.0	2,727.4	2,105.7	4,840.2	401.0	552.8	72	81
1962 ASM <sup>1</sup> .....	(NA)	(NA)	82.4	633.9	56.2	113.7	390.8	2,511.4	1,911.3	4,430.1	267.9	515.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	82.4	619.0	56.5	115.1	387.2	2,198.9	1,755.9	3,947.2	380.6	493.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	78.0	560.4	54.3	107.5	344.8	2,080.7	1,673.0	3,712.9	297.7	461.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	76.2	528.3	52.9	105.0	330.1	2,040.4	1,579.2	3,609.2	224.3	420.4	(NA)	(NA)
1958 Census <sup>2</sup> ...	334	185	77.4	508.4	52.0	103.9	312.4	1,725.8	1,370.1	3,098.0	330.3	440.0	73	79

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

fied in the Industrial Organic Chemicals, N.E.C., Industry amounted to \$6,417.1 million, an increase of 33 percent compared with 1963. Value added by manufacture at \$3,579.1 million in 1967 was 31 percent more than value added in 1963. Average employment in the industry showed an increase of 11 percent from 1963 to a total of 95.3 thousand employees in 1967.

Of the \$6,417.1 million total value of shipments and other receipts of establishments classified as industrial organic chemicals, n.e.c., \$1,647.3 million were products primary to other industries; and \$213.7 million were receipts for miscellaneous activities. The industry shipments of primary products represented 73 percent of the total manufactured product shipments, primary and secondary. This percent, called the speciali-

zation ratio for the industry, was 72 percent in 1963.

The total value of industrial organic chemicals, n.e.c., shipped by all producers in 1967 was \$5,548.4 million of which \$4,556.1 million, or 82 percent, were shipped by plants classified in industry 2818, Industrial Organic Chemicals, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 81 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employ- ees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2818.--INDUSTRIAL ORGANIC CHEMICALS, N. E. C.													
United States, total.....	489	268	95.3	850.3	62.2	126.6	501.2	3,579.1	2,866.0	6,417.1	724.8	85.5	2,727.4
New England.....	36	14	3.9	30.8	2.4	4.6	16.1	71.4	115.6	185.1	8.2	3.3	62.2
Massachusetts.....	16	5	0.8	6.4	0.6	1.1	4.3	11.1	24.4	35.3	1.7	1.0	11.6
Middle Atlantic.....	134	77	22.9	204.9	14.8	29.9	117.3	521.8	637.8	1,157.0	87.0	21.6	391.5
New York.....	39	21	6.3	54.2	4.0	8.5	29.9	126.9	139.4	264.7	24.0	5.8	80.4
New Jersey.....	76	45	14.6	137.1	9.5	18.6	78.9	366.5	440.4	808.3	54.2	13.8	284.8
Pennsylvania.....	19	11	1.9	13.5	1.3	2.8	8.5	28.4	57.9	84.1	8.8	2.0	26.3
North Central.....	97	52	17.2	149.5	10.3	20.6	79.4	527.1	389.3	902.0	53.2	14.7	325.2
Ohio.....	28	17	2.7	25.8	1.5	3.1	11.7	80.2	88.6	167.7	10.6	1.9	49.8
Illinois.....	24	10	2.4	19.3	1.3	2.8	10.1	74.6	80.1	155.7	5.2	2.6	56.1
South Atlantic.....	57	31	14.4	120.6	10.7	21.5	84.3	613.8	382.9	995.1	113.9	12.3	540.7
North Carolina.....	13	6	0.4	2.8	0.3	0.6	1.3	16.9	25.4	41.5	31.6	0.2	10.2
South Carolina.....	7	3	0.5	3.8	0.4	0.8	2.5	13.3	13.8	26.6	1.2	(D)	(D)
East South Central....	25	18	7.2	63.2	4.8	10.0	37.3	235.7	265.0	495.6	72.7	6.0	172.5
Kentucky.....	8	8	2.3	21.6	1.5	3.3	12.8	82.9	95.0	177.0	39.4	2.0	54.3
West South Central....	78	48	26.4	253.5	17.3	36.0	151.6	1,477.7	956.6	2,435.0	381.7	25.1	1,164.3
Texas.....	51	33	18.6	179.4	12.1	25.0	106.5	1,143.6	728.9	1,874.8	249.4	19.3	960.8
West.....	62	28	3.3	27.9	2.0	4.0	15.2	131.7	118.7	247.4	8.1	2.6	71.1
California.....	46	21	2.6	22.4	1.5	3.0	11.7	110.3	100.4	209.4	(D)	2.3	67.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Total shipments including interplant transfers (million dollars)	Commercial shipments only (million dollars)	Interplant transfers only (million dollars)	Total shipments including interplant transfers (million dollars)	Commercial shipments only (million dollars)	Interplant transfers only (million dollars)
2818- --	INDUSTRIAL ORGANIC CHEMICALS, N.E.C., TOTAL.....	5,548.4	(X)	(X)	4,183.8	(X)	(X)
28181 11	Miscellaneous cyclic (coal tar) chemical products <sup>1</sup> .....	313.7	269.3	44.4	200.5	188.2	12.3
28182 11	Miscellaneous acyclic chemicals and chemical products <sup>1</sup> .....	4,030.8	3,143.3	887.5	3,129.1	2,165.5	963.6
28183 --	Synthetic organic chemicals, n.e.c. (except bulk surface active agents).....	591.7	(X)	(X)	426.8	(X)	(X)
28183 11	Flavor and perfume materials <sup>1</sup> .....	119.0	(D)	(D)	86.6	(D)	(D)
28183 31	Rubber-processing chemicals <sup>1</sup> .....	152.3	137.1	15.2	138.0	(D)	(D)
28183 51	Plasticizers <sup>1</sup> .....	314.4	285.0	29.4	199.9	177.6	22.3
28183 00	Synthetic organic chemicals, n.e.c., n.s.k.....	6.0	(X)	(X)	2.2	(X)	(X)
28184 11	Pesticides and other synthetic organic agricultural chemicals (except preparations) <sup>1</sup> .....	340.3	314.8	25.5	223.4	207.3	16.0
28185 --	Ethyl alcohol and other industrial organic chemicals, n.e.c., total.....	234.9	(X)	(X)	192.3	(X)	(X)
	Ethyl alcohol: <sup>2</sup>						
28185 11	Pure (natural).....	33.6	(D)	(D)	32.6	(D)	(D)
28185 21	Denatured (special or complete) including natural and synthetic, for uses other than rubbing	44.2	(D)	(D)	41.2	(NA)	(NA)
	Other industrial organic chemicals:						
28185 31	Flavor oil mixtures and blends.....	27.9	27.9	-	24.1	(NA)	(NA)
28185 37	Reagent and high purity grades of organic chemicals refined from purchased technical grades.	19.7	19.7	-	21.0	(NA)	(NA)
28185 51	Natural organic chemicals, n.e.c.....	39.5	(D)	(D)	22.1	(NA)	(NA)
28185 98	Other industrial organic chemicals.....	67.8	52.6	15.2	49.7	49.1	0.7
28185 00	Other industrial organic chemicals, n.s.k.....	2.2	(X)	(X)	1.4	(X)	(X)
28180 00	Industrial organic chemicals, n.e.c., n.s.k. (For companies with 10 or more employees. See Note.).....	31.8	(X)	(X)	11.6	(X)	(X)
28180 02	Industrial organic chemicals, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	5.2	(X)	(X)			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Data on quantities produced and values shipped for many of the synthetic organic chemicals included in this grouping are shown in the United States Tariff Commission's annual report "Synthetic Organic Chemicals, United States Production and Sales."

<sup>2</sup>For quantity information refer to the United States Treasury Department, Internal Revenue Service Publication: Alcohol and Tobacco - 1967. Excludes shipments reported as rubbing alcohol (primary to Industry 2834, Pharmaceutical Preparations), and as antifreeze (primary to Industry 2899, Chemical Preparations, N.E.C.).

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967				1963			
				Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)	Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)
					Quantity	Delivered cost (million dollars)			Quantity	Delivered cost (million dollars)	
	INDUSTRY 2818.—INDUSTRIAL ORGANIC CHEMICALS, N.E.C.										
	Materials, containers, and supplies, total.....			(X)	(X)	2,407.3	(X)	(X)	(X)	1,764.9	(X)
	Inorganic chemicals:										
	Acids, except spent acids:										
281944	Hydrochloric acid.....	100% HCl..	1,000 short tons.....	(S)	(S)	13.7	(S)	438.7	149.2	6.7	289.5
281946	Hydrofluoric acid.....	100% HF...	...do.....	103.6	60.3	16.5	43.3	60.2	33.5	8.8	26.7
281911	Nitric acid.....	100% HNO <sub>3</sub> ..	...do.....	(S)	(S)	14.0	(S)	447.6	91.0	7.0	356.7
281948	Phosphoric acid.....	100% P <sub>2</sub> O <sub>5</sub> ..	...do.....	(NA)	(NA)	(Z)	(NA)	5.2	5.2	0.8	-
281931	Sulfuric acid.....	100% H <sub>2</sub> SO <sub>4</sub> ..	...do.....	1,810.1	1,220.6	25.4	589.5	1,502.4	948.9	19.4	553.5
281912	Ammonia, synthetic, anhydrous...	100% NH <sub>3</sub> ...	...do.....	1,216.0	522.5	24.2	693.5	755.6	379.2	25.8	376.3
281211	Chlorine.....	100% Cl...	...do.....	4,734.8	1,506.1	71.9	3,228.7	2,940.8	1,115.2	64.9	1,825.6
281996	Phosphorus, elemental.....	Technical..	...do.....	15.8	8.9	2.8	6.8	3.1	3.1	1.0	-
281228	Sodium carbonate (soda ash).....	58% Na <sub>2</sub> O...	...do.....	49.7	47.9	2.0	1.8	43.8	40.4	1.7	3.4
281238	Sodium hydroxide (caustic soda)...	100% NaOH..	...do.....	(S)	608.6	27.6	(S)	1,345.0	463.8	22.0	881.1
	Organic chemicals:										
281852	Alcohol, ethyl (pure and de-natured).....			(X)	(X)	41.4	(X)	(NA)	(NA)	37.8	-
281820	Other alcohols, including amyl, butyl, methyl, and propyl.....		Million gals.	(NA)	(NA)	88.2	(NA)	431.5	176.3	55.9	255.2
281511	Aniline.....	100%.....	Million lbs.	79.4	79.4	9.4	-	56.8	56.8	8.1	-
281552	Benzol (benzene).....	100% C <sub>6</sub> H <sub>6</sub> ..	...do.....	1,232.9	(D)	( <sup>1</sup> )	(D)	1,209.1	1,024.3	34.3	184.8
281823	Formaldehyde.....	37% HCHO...	...do.....	1,238.6	101.9	3.0	1,136.7	1,052.2	111.4	3.2	940.8
	Liquefied petroleum and refinery gases for chemical feedstocks:										
291165	Ethylene.....		...do.....	7,852.7	2,335.8	89.6	5,517.0	4,512.3	1,075.3	51.7	3,437.0
291164	Propane.....		...do.....	320.2	320.2	35.2	-	(NA)	(NA)	26.4	(NA)
291166	Propylene.....		Million lbs.	2,688.4	1,841.2	41.0	847.1	1,554.1	1,276.2	26.0	277.9
291169	Other, including mixtures.....		...do.....	(NA)	(NA)	103.3	(NA)	(NA)	(NA)	51.6	(NA)
281555	Naphthalene.....		...do.....	397.2	397.2	17.6	-	296.9	294.5	13.9	2.4
281513	Phenol.....	100%.....	...do.....	488.2	344.8	30.8	143.4	225.4	140.1	22.0	85.3
281514	Phthalic anhydride.....	100%.....	...do.....	298.3	124.7	12.9	173.6	151.5	52.7	5.8	98.8
	Crude materials:										
147701	Sulfur.....		1,000 long tons.....	718.0	718.0	24.8	-	539.9	539.9	13.7	-
	Used as raw materials:										
121011	Bituminous coal and lignite.....		1,000 short tons.....	(NA)	(NA)	(Z)	-	(NA)	(NA)	7.8	-
291101	Fuel oil.....		...do.....	(NA)	(NA)	(Z)	-	(NA)	(NA)	1.1	-
131302	Natural gas.....		Mil. cu. ft.	(S)	(S)	62.1	-	(NA)	(NA)	43.6	-
970099	All other materials and components, parts, containers, and supplies consumed.....			(X)	(X)	1,449.0	(X)	(X)	(X)	1,072.5	(X)
976000	Materials, containers, and supplies, n.s.k. <sup>2</sup> .....			(X)	(X)	200.9	(X)	(X)	(X)	131.2	(X)

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable. (Z) Less than 0.1 when rounded.

<sup>1</sup>Code 281552 combined with code 970099 for 1967.

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2818, these small establishments accounted for approximately 0.1 percent of payrolls and 0.1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

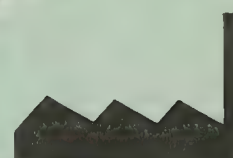
the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



1967 CENSUS OF  
MANUFACTURES

MC67(P)-28A-6

## INDUSTRY SERIES

preliminary  
report

## Industrial inorganic chemicals, n.e.c.

SIC Code 2819

The Industrial Inorganic Chemicals, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing industrial inorganic chemicals, n.e.c. Important products of this industry include inorganic salts of sodium (excluding refined sodium chloride), potassium, aluminum, calcium, chromium, magnesium, mercury, nickel, silver, tin; in-

organic compounds such as alums, calcium, carbide, hydrogen peroxide, phosphates, sodium silicate, ammonia compounds and anhydrous ammonia; rare earth metal salts and elemental bromine, fluorine, iodine, phosphorus, and alkali metals (sodium, potassium, lithium, etc.). Establishments primarily engaged in mining, milling, or otherwise preparing natural potassium, sodium,

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture <sup>3</sup>	Cost of materials <sup>4</sup>	Value of shipments <sup>5</sup>	Capital expenditures, new <sup>6</sup>	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2819.--INDUSTRIAL INORGANIC CHEMICALS, N.E.C. <sup>7</sup>														
1967 Census....	718	356	81.1	661.2	51.7	106.0	380.4	2,278.5	1,950.6	4,196.6	260.3	466.5	87	78
1966 ASM <sup>1</sup> .....	(NA)	(NA)	77.6	614.2	50.6	102.6	362.9	1,996.4	1,874.2	3,845.2	351.7	399.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	77.5	597.3	50.6	105.2	346.6	2,022.2	1,746.1	3,744.4	330.8	363.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	80.0	605.4	51.5	107.2	352.2	2,099.8	1,636.8	3,727.3	223.4	320.3	(NA)	(NA)
1963 Census....	674	323	82.4	603.0	53.5	108.1	351.7	1,902.6	1,586.5	3,493.9	137.1	312.6	88	74
1962 ASM <sup>1</sup> .....	(NA)	(NA)	83.9	602.0	53.8	111.1	347.6	1,775.6	1,506.4	3,259.2	144.5	329.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	84.4	588.1	54.4	111.1	338.0	1,687.7	1,420.4	3,100.9	139.5	309.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	90.0	603.0	58.4	120.0	351.1	1,690.8	1,437.3	3,113.7	173.0	318.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	90.1	578.8	59.2	122.1	342.5	1,683.0	1,415.9	3,078.3	132.3	308.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	580	301	89.9	550.3	58.4	118.7	327.2	1,468.9	1,288.7	2,754.4	138.4	280.9	87	76
INDUSTRY 2819.--PRIVATELY-OWNED AND OPERATED ESTABLISHMENTS <sup>7</sup>														
1967 Census....	708	346	57.5	457.1	40.0	83.0	292.4	1,670.6	1,823.5	3,461.6	260.3	466.5	87	78
1963 Census....	665	314	51.1	353.1	36.4	74.0	232.4	1,243.8	1,379.4	2,628.0	137.1	312.6	88	74
1958 Census....	569	291	54.0	311.3	38.5	78.8	205.9	930.5	1,052.0	1,979.4	129.4	280.9	87	76

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

<sup>3</sup>Data include value added for government-owned, contractor-operated plants which was estimated based upon averages reported for commercial establishments in prior years.

<sup>4</sup>Data exclude government-owned materials furnished to government owned, contractor-operated plants and includes fuel and electricity purchased by or for these establishments.

<sup>5</sup>Data include a calculated value of shipments for government-owned, contractor-operated plants comprised of adjusted value added (estimated as described in footnote 2) plus the cost of fuels and electric energy.

<sup>6</sup>Includes expenditures for plants under construction but not in operation. Capital expenditures of government-owned, contractor-operated plants are excluded from the totals for the industry.

<sup>7</sup>Inorganic Chemicals, N.E.C., total includes in addition to privately-owned establishments, government-owned, contractor operated plants. See privately owned plants.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

or boron compounds (other than common salt) are classified in industry 1474.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Industrial Inorganic Chemicals, N.E.C., Industry amounted to \$4,196.6 million, an increase of 20 percent compared with 1963. Value added by manufacture at \$2,278.5 million in 1967 was 20 percent more than value added in 1963. Average employment in the industry showed a decrease of 2 percent from 1963 to a total of 81.1 thousand employees in 1967.

Of the \$4,196.6 million total value of shipments and other receipts of establishments classified as industrial inorganic chemicals, n.e.c., \$896.4 million were receipts for miscellaneous activities. The industry shipments of primary

products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

The total value of industrial inorganic chemicals, n.e.c., shipped by all producers in 1967 was \$3,680.2 million of which \$2,869.5 million, or 78 percent, were shipped by plants classified in industry 2819, Industrial Inorganic Chemicals, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 74 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2819, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M28A, Inorganic Chemicals and Gases.



## 1967 CENSUS OF MANUFACTURES

3

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967										1963		
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2819.--INDUSTRIAL INORGANIC CHEMICALS, N.E.C.												
United States, total.....	718	356	81.1	661.2	51.7	106.0	380.4	2,278.5	1,950.6	4,196.6	260.3	82.4	1,902.6
New England.....	32	9	0.7	5.1	0.4	0.8	2.6	15.3	13.8	28.0	(D)	0.5	10.1
Massachusetts.....	15	5	0.4	3.3	0.3	0.5	1.9	11.9	6.9	18.4	0.6	0.4	5.6
Middle Atlantic.....	123	62	7.7	61.3	5.1	10.4	37.1	232.9	302.7	533.7	(D)	7.1	183.7
New York.....	40	11	1.6	13.3	1.1	2.1	8.1	42.8	43.4	85.2	(D)	(D)	(D)
New Jersey.....	50	31	3.8	30.6	2.4	5.1	18.0	101.3	163.8	266.7	7.9	3.9	89.1
Pennsylvania.....	33	20	2.3	17.4	1.6	3.2	11.0	88.9	95.5	181.8	2.7	(D)	(D)
East North Central.....	134	66	14.3	117.1	9.6	19.7	73.1	378.5	352.3	726.4	28.8	14.3	313.5
Ohio.....	41	25	7.0	56.3	4.4	8.7	32.7	189.6	127.7	315.7	8.6	7.5	156.8
Indiana.....	14	8	1.1	8.8	0.8	1.5	5.8	49.1	46.6	96.5	2.0	1.0	32.5
Illinois.....	41	22	2.9	23.9	2.0	4.4	15.5	67.3	91.7	157.2	11.0	3.0	62.0
Michigan.....	25	11	3.2	27.4	2.4	4.9	18.9	70.1	83.3	151.7	7.2	2.8	60.0
Wisconsin.....	12	-	0.1	0.7	0.1	0.1	0.3	2.4	3.0	5.4	(Z)	0.1	2.2
West North Central.....	40	27	5.7	47.1	3.6	7.5	25.2	170.0	132.1	291.9	29.7	5.4	107.6
Minnesota.....	5	2	0.2	2.2	0.2	0.4	1.3	7.6	5.8	13.0	(D)	0.3	7.5
Missouri.....	11	7	2.8	24.5	1.4	2.9	10.1	48.8	47.8	94.9	9.8	2.7	35.8
Kansas.....	8	5	1.4	10.4	1.1	2.4	7.4	49.8	41.1	88.2	3.7	1.4	37.3
South Atlantic.....	110	46	13.4	110.0	7.9	16.0	53.6	336.7	207.5	539.9	30.1	14.7	296.4
Maryland.....	17	9	1.6	10.9	1.2	2.3	7.1	40.4	30.5	69.8	2.3	1.6	26.7
Georgia.....	26	11	1.4	11.2	0.8	1.6	4.6	37.7	48.7	83.3	11.5	0.8	18.1
Florida.....	27	11	1.1	6.6	0.8	1.8	4.6	31.2	49.8	81.3	2.2	0.9	24.5
East South Central.....	50	32	15.6	127.6	9.8	20.1	69.8	475.8	315.2	784.4	26.3	15.3	378.7
Kentucky.....	8	6	2.6	20.0	1.6	3.2	11.4	76.1	71.8	147.0	(D)	(D)	(D)
Tennessee.....	23	17	10.9	91.5	6.6	13.7	48.4	322.9	158.7	480.1	9.5	11.3	256.3
West South Central.....	103	56	11.3	91.8	8.6	17.6	65.6	324.7	430.8	755.0	104.6	9.3	248.4
Louisiana.....	24	15	3.9	34.0	2.9	6.2	24.0	109.4	166.4	278.7	58.3	3.2	61.1
Texas.....	62	30	4.0	32.8	3.1	6.5	23.2	141.5	181.0	320.9	34.9	3.5	126.7
Mountain.....	27	15	4.5	31.6	1.9	4.0	15.2	125.1	55.5	180.3	14.1	(D)	(D)
Colorado.....	5	4	0.3	1.9	0.2	0.4	1.5	6.5	7.7	13.1	(D)	0.1	1.9
Pacific.....	99	43	8.0	69.8	4.9	9.9	38.2	219.4	140.7	357.0	10.8	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

- Represents zero.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2819- --	INDUSTRIAL INORGANIC CHEMICALS, N.E.C.: As reported in the census of manufactures..... As reported in Current Industrial Reports M28A <sup>2</sup> .	(X) (X)	(X) (X)	3,680.2 13,835.0	(X) (X)	(X) (X)	(X) (X)	(X) (X)	12,995.9 13,002.4	(X) (X)	(X) (X)
28191 --	Synthetic ammonia, nitric acid, and ammonium compounds:										
28191 00	As reported in the census of manufactures..... As reported in Current Industrial Reports M28A.....	(X) (X)	(X) (X)	827.3 1891.0	(X) (X)	(X) (X)	(X) (X)	(X) (X)	1587.8 1593.7	(X) (X)	(X) (X)
28191 11	Nitric acid (100% HNO <sub>3</sub> ).....	6,264.6	699.8	45.7	409.0	23.8	4,242.4	392.8	26.2	252.3	16.0
28191 31	Ammonia (100% NH <sub>3</sub> ): <sup>3</sup> Anhydrous.....	12,200.2	7,010.0	392.3	5,858.1	337.2	6,693.0	3,464.8	238.6	3,039.7	207.5
28191 33	Aqua.....	64.9	55.7	4.1	53.4	3.9	59.9	52.7	4.3	49.9	4.1
	Ammonium compounds:										
28191 41	Chloride (100% NH <sub>4</sub> Cl): Gray.....	(D)	(D)	(4)	(D)	(D)	22.5	22.2	2.7	(D)	(D)
28191 43	White.....										
	Nitrate (100% HN <sub>3</sub> NO <sub>3</sub> ), total.....	5,706.6	3,382.5	175.9	(D)	(D)	3,993.4	2,285.5	135.6	(D)	(D)
	Fertilizer use:										
28191 51	Solution.....	612,073.5	294.0	14.1	292.5	14.0	61,647.5	160.1	7.8	(D)	(D)
28191 52	Solid.....	2,830.5	2,651.1	139.0	(D)	(D)	1,926.8	1,841.2	112.2	(D)	(D)
28191 53	Explosive and other uses	734.5	437.4	22.9	(D)	(D)	419.1	284.1	15.6	258.8	14.2
28191 55	Nitrogen solutions, including mixtures containing urea (100% N).....	1,391.8	1,359.5	161.8	1,192.0	140.1	1,107.3	1,050.5	125.2	(D)	(D)
28191 57	Sulfate (other than byproduct coke oven)(100% (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> ) <sup>3</sup> .....	1,936.5	1,714.2	79.5	(D)	(D)	1,202.3	1,208.1	33.4	(D)	(D)
28191 59	Other ammonium compounds..	(X)	(X)	31.6	(X)	(X)	(X)	(X)	27.6	(X)	(X)
28192 --	Inorganic industrial and household bleaching compounds:										
28192 00	As reported in the census of manufactures..... As reported in Current Industrial Reports M28A.....	(X) (X)	(X) (X)	210.5 193.4	(X) (X)	(X) (X)	(X) (X)	(X) (X)	200.0 200.1	(X) (X)	(X) (X)
28192 11	Calcium hypochlorite (high test) (70% avail. Cl) <sup>3</sup> .....	40.3	38.0	14.9	(D)	(D)	23.7	21.5	9.5	(D)	(D)
28192 43	Household liquid bleaches (sodium hypochlorite, etc.)	(X)	(X)	151.6	(X)	(X)	(X)	(X)	(7)	(X)	(X)
28192 53	Household dry bleaches (inorganic base).....	(X)	(X)	23.6	(X)	(X)	(X)	(X)	(7)	(X)	(X)
28192 31	Industrial bleaches including liquid lime bleaches.....	(X)	(X)	3.2	(X)	(X)	(X)	(X)	7190.7	(X)	(X)
28193 --	Sulfuric acid:										
28193 00	As reported in the census of manufactures..... As reported in Current Industrial Reports M28A.....	(X) 28,815.2	(X) 13,500.6	249.6 252.2	(X) 12,278.9	(X) 228.7	(X) 20,935.8	(X) 11,464.2	193.9 195.9	(X) 10,205.5	(X) 173.6
	Contact acid:										
28193 11	Oleum under 40%.....	2,070.0	1,492.2	29.4	1,182.2	22.9	1,801.3	1,445.8	25.9	(D)	(D)
28193 15	Oleum 40%.....	751.1	(D)	(D)	(D)	(D)	51.2	(D)	(D)	(D)	(D)
28193 17	Oleum over 40%.....	228.1	(D)	(D)	(D)	(D)	100.7	(D)	(D)	(D)	(D)
28193 31	Other than oleum grades...	24,922.3	11,053.6	203.8	10,222.6	188.1	17,028.4	9,295.2	157.4	8,377.1	142.1
28193 51	Chamber acid.....	843.7	215.4	4.2	178.6	3.7	1,517.5	625.8	9.8	486.3	7.0
28193 71	Spent acid used in fortification in contact units and included in production reported above, including acid from own production or received from outside sources.....	1,079.7	(X)	(X)	(X)	(X)	898.3	(X)	(X)	(X)	(X)

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2819- --	INDUSTRIAL INORGANIC CHEMICALS, N.E.C.—Con.										
28194 --	Inorganic acids, except nitric and sulfuric:										
	As reported in the census of manufactures.....	(X)	(X)	247.8	(X)	(X)	(X)	(X)	<sup>1</sup> 166.3	(X)	(X)
	As reported in Current Industrial Reports M28A.....	(X)	(X)	<sup>1</sup> 237.0	(X)	(X)	(X)	(X)	<sup>1</sup> 168.3	(X)	(X)
28194 11	Boric (boracic) (100% H <sub>3</sub> BO <sub>3</sub> )..	122.4	101.6	10.0	(D)	(D)	104.1	91.5	10.3	(D)	(D)
28194 31	Chromic acid (100% CrO <sub>3</sub> ) <sup>8</sup> ...	22.0	21.8	11.9	(D)	(D)	19.7	19.4	9.7	(D)	(D)
	Hydrochloric, including anhydrous (100% HCl) <sup>9</sup> .....	1,625.1	<sup>r</sup> 686.4	<sup>r</sup> 33.8	(D)	(D)	1,053.5	514.9	26.7	(D)	(D)
28194 41	From salt.....	136.4	104.0	<sup>r</sup> 7.0	(D)	(D)	128.7	96.0	6.6	(D)	(D)
28194 45	From chlorine.....	113.9	<sup>r</sup> 91.6	<sup>r</sup> 5.1	(D)	(D)	92.3	71.3	4.3	64.4	4.1
28194 47	Byproduct and other.....	1,374.7	<sup>r</sup> 490.9	<sup>r</sup> 21.7	<sup>r</sup> 441.7	<sup>r</sup> 19.9	832.6	347.6	15.9	299.7	13.9
28194 51	Hydrocyanic, including anhydrous (100% HCN).....	126.1	(D)	( <sup>10</sup> )	(D)	(D)	146.5	(D)	( <sup>10</sup> )	(D)	(D)
	Hydrofluoric (100% HF):										
28194 61	Anhydrous.....	<sup>r</sup> 168.4	<sup>r</sup> 118.4	<sup>r</sup> 32.3	(D)	(D)	116.9	74.2	20.7	(D)	(D)
28194 65	Technical.....	<sup>r</sup> 22.3	<sup>r</sup> 22.3	<sup>r</sup> 6.1	(D)	(D)	11.6	12.2	3.4	(D)	(D)
28194 67	Mixed (sulfuric and nitric)..	306.3	(D)	( <sup>10</sup> )	(D)	(D)	187.6	(D)	( <sup>10</sup> )	(D)	(D)
	Phosphoric (100% P <sub>2</sub> O <sub>5</sub> ).....	5,188.9	1,076.7	117.3	(D)	(D)	2,904.8	613.7	76.5	(D)	(D)
28194 81	From phosphorus.....	1,046.4	308.8	40.5	(D)	(D)	947.3	285.0	41.6	(D)	(D)
28194 82	Fertilizer use.....	(NA)	(NA)	(NA)	(NA)	(NA)	184.5	111.8	14.7	(D)	(D)
28194 83	Other uses.....	(NA)	(NA)	(NA)	(NA)	(NA)	762.8	173.3	26.8	(D)	(D)
28194 85	From other sources (phosphate rock, etc.)...	4,142.5	767.9	76.8	527.2	52.7	1,957.5	328.6	35.0	243.1	25.4
28194 86	Fertilizer use.....	(NA)	(NA)	(NA)	(NA)	(NA)	1,770.4	(D)	(D)	(D)	(D)
28194 87	Other uses.....	(NA)	(NA)	(NA)	(NA)	(NA)	187.0	(D)	(D)	(D)	(D)
28194 88	Other inorganic acid acids, n.e.c.....	(X)	(X)	<sup>10</sup> 25.6	(X)	(X)	(X)	(X)	<sup>10</sup> 21.0	(X)	(X)
28195 --	Aluminum oxide, except natural alumina (100% Al <sub>2</sub> O <sub>3</sub> ):										
28195 00	As reported in the census of manufactures.....	(X)	(X)	402.4	(X)	(X)	(X)	(X)	318.5	(X)	(X)
28195 11	As reported in Current Industrial Reports M28A.....	6,045.6	6,021.8	409.5	734.6	70.8	4,817.1	4,788.0	319.3	502.5	38.0
28196 --	Other aluminum compounds:										
28196 00	As reported in the census of manufactures.....	(X)	(X)	127.2	(X)	(X)	(X)	(X)	103.8	(X)	(X)
	As reported in Current Industrial Reports M28A.....	(X)	(X)	120.7	(X)	(X)	(X)	(X)	100.5	(X)	(X)
	Chloride:										
28196 11	Liquid (32° Be').....	22.4	11.7	0.8	(D)	(D)	26.6	13.1	1.0	(D)	(D)
28196 15	Crystal (32° Be').....										
28196 17	Anhydrous (100% AlCl <sub>3</sub> )....										
28196 25	Hydroxide; trihydrate (100% Al <sub>2</sub> O <sub>3</sub> ·3H <sub>2</sub> O).....	274.8	254.6	19.0	(D)	(D)	229.6	215.0	15.2	(D)	(D)
28196 27	Fluoride (technical).....	131.6	131.5	30.9	(D)	(D)	81.4	81.1	22.2	(D)	(D)
	Sulfate:										
28196 51	Commercial (17% Al <sub>2</sub> O <sub>3</sub> )....	<sup>11</sup> 1,038.7	1,009.8	41.5	(D)	(D)	<sup>11</sup> 947.5	945.6	34.8	925.2	34.1
28196 55	Iron free (17% Al <sub>2</sub> O <sub>3</sub> ).....	60.2	36.6	2.2	(D)	(D)	59.1	35.8	2.3	(D)	(D)
28196 71	Other inorganic aluminum compounds, (including sodium aluminate, light aluminum hydroxide, cryolite, and alums).....	(X)	(X)	16.7	(X)	(X)	(X)	(X)	18.9	(X)	(X)
28197 --	Potassium and sodium compounds (except bleaches, alkalies, and alums):										
28197 00	As reported in the census of manufactures.....	(X)	(X)	451.0	(X)	(X)	(X)	(X)	<sup>1</sup> 513.3	(X)	(X)
	As reported in Current Industrial Reports M28A.....	(X)	(X)	<sup>1</sup> 561.7	(X)	(X)	(X)	(X)	<sup>1</sup> 517.5	(X)	(X)
	Potassium compounds, n.e.c.:										
28197 13	Iodide (100% KI).....	0.8	0.8	1.6	(D)	(D)	0.6	0.5	1.4	(D)	(D)
28197 16	Sulfate (100% K <sub>2</sub> SO <sub>4</sub> ).....	244.0	219.8	8.2	(D)	(D)	243.6	209.7	8.6	(D)	(D)
28197 18	Tetrapotassium pyrophosphate (100% K <sub>2</sub> P <sub>2</sub> O <sub>7</sub> ).....	54.9	46.2	9.2	(D)	(D)	37.4	32.8	7.2	(D)	(D)
28197 17	Other potassium salts and compounds, n.e.c.....	(X)	(X)	97.2	(X)	(X)	(X)	(X)	108.1	(X)	(X)

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
2819- --	INDUSTRIAL INORGANIC CHEMICALS, N.E.C.-- Continued										
28197 --	Potassium and sodium compounds (except bleaches, alkalies, and alums)--Continued As reported in Current Indus- trial Reports M28A--Continued										
28197 21	Sodium (metal) (100% Na)....	164.5	100.2	30.8	(D)	(D)	125.6	72.2	23.8	(D)	(D)
	Sodium compounds, n.e.c.:										
28197 24	Borate (borax).....	588.2	166.7	8.9	(D)	(D)	(D)	(D)	( <sup>12</sup> )	(D)	(D)
28197 27	Chlorate (100% NaClO <sub>3</sub> )....	155.5	141.4	17.5	(D)	(D)	124.3	105.4	16.7	(D)	(D)
28197 28	Fluoride.....	7.1	6.8	1.8	6.8	1.8	5.8	5.7	1.4	(D)	(D)
28197 29	Hydrosulfide (sodium sulfhydrate) (100% NaSh).	43.5	38.9	3.7	36.8	3.5	25.2	22.4	2.7	20.2	2.5
28197 30	Hydrosulfite (100% Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub> ).....	36.0	36.0	16.7	(D)	(D)	29.6	29.4	13.1	(D)	(D)
	Phosphate:										
28197 32	Monobasic (100% NaH <sub>2</sub> PO <sub>4</sub> )	<sup>13</sup> 17.4	18.0	3.3	(D)	(D)	<sup>13</sup> 14.6	14.6	2.5	(D)	(D)
28197 33	Dibasic (100% Na <sub>2</sub> HPO <sub>4</sub> )..	<sup>13</sup> 22.6	22.0	3.5	(D)	(D)	<sup>13</sup> 23.7	22.5	3.6	(D)	(D)
28197 34	Tribasic (100% Na <sub>3</sub> PO <sub>4</sub> )..	61.7	56.9	8.9	(D)	(D)	56.7	56.1	10.1	(D)	(D)
28197 35	Tetrabasic (100% Na <sub>4</sub> P <sub>2</sub> O <sub>7</sub> ).....	108.8	105.6	12.8	(D)	(D)	109.3	108.1	13.8	106.6	13.6
28197 36	Meta (100% NaPO NaPO <sub>3</sub> )..	88.1	86.0	14.1	85.5	13.9	64.5	62.4	11.2	60.3	10.8
28197 37	Acid pyro (100% Na <sub>2</sub> H <sub>2</sub> P <sub>2</sub> O <sub>7</sub> ).....	25.2	23.8	4.8	(D)	(D)	20.4	19.1	4.0	(D)	(D)
28197 38	Tripoly (100% Na <sub>5</sub> P <sub>3</sub> O <sub>10</sub> )..	1,048.1	1,010.9	127.6	(D)	(D)	817.7	787.1	108.2	(D)	(D)
28197 39	Other sodium phosphates.	(X)	(X)	9.2	(X)	(X)	(X)	(X)	( <sup>14</sup> )	(X)	(X)
	Silicates:										
28197 41	Soluble silicate glass (water glass) solid and liquid (anhydrous)....	<sup>15</sup> 612.6	439.4	29.9	(D)	(D)	<sup>15</sup> 551.2	438.2	28.5	(D)	(D)
28197 43	Metasilicate (100% Na <sub>2</sub> SiO <sub>3</sub> ·5H <sub>2</sub> O).....	218.5	164.0	15.1	(D)	(D)	237.5	157.4	11.6	(D)	(D)
28197 45	Orthosilicate (100% Na <sub>4</sub> SiO <sub>4</sub> ).....	43.0	42.3	5.5	(D)	(D)	36.7	36.4	4.5	(D)	(D)
28197 51	Silicofluoride (100% Na <sub>2</sub> SiF <sub>6</sub> ).....	52.3	48.8	6.8	(D)	(D)	40.0	35.2	4.0	(D)	(D)
	Sulfate:										
28197 61	High purity (refined) (100% Na <sub>2</sub> SO <sub>4</sub> ).....	418.6	422.3	10.9	(D)	(D)	395.9	400.6	10.5	(D)	(D)
28197 65	Low purity (99% or less Na <sub>2</sub> SO <sub>4</sub> ) (100% Na <sub>2</sub> SO <sub>4</sub> )..	945.4	961.6	19.3	(D)	(D)	836.8	825.6	18.4	808.6	18.2
28197 67	Glauber's salt (100% Na <sub>2</sub> SO <sub>4</sub> ·10H <sub>2</sub> O).....										
	Sulfide:										
28197 82	Concentrated (60-62% Na <sub>2</sub> S).....	22.2	14.8	1.6	14.8	1.6	26.9	21.7	2.3	(D)	(D)
28197 83	Other, including liquid and crystal (60-62% Na <sub>2</sub> S).....	<sup>16</sup> 79.4	69.4	2.1	69.8	2.1	<sup>16</sup> 25.3	24.0	0.8	24.0	0.8
28197 84	Sulfite (100% Na <sub>2</sub> SO <sub>3</sub> )....	249.5	245.8	11.7	(D)	(D)	207.4	204.3	8.4	(D)	(D)
28197 87	Other sodium compounds, n.e.c.....	(X)	(X)	<sup>17</sup> 79.1	(X)	(X)	(X)	(X)	<sup>12</sup> <sup>14</sup> 92.0	(X)	(X)
28198 --	Chemical catalytic preparations:										
28198 00	As reported in the census of manufactures.....	(X)	(X)	<sup>17</sup> 122.9	(X)	(X)	(X)	(X)	75.2	(X)	(X)
28198 11	As reported in Current Indus- trial Reports M28A.....	(X)	(X)	123.0	(X)	(X)	(X)	(X)	74.4	(X)	(X)
28199 --	Other inorganic chemicals, n.e.c.:										
28199 00	As reported in the census of manufactures.....	(X)	(X)	1,002.9	(X)	(X)	(X)	(X)	<sup>18</sup> 25.8	(X)	(X)
	As reported in Current Indus- trial Reports M28A.....	(X)	(X)	<sup>17</sup> 1,046.5	(X)	(X)	(X)	(X)	<sup>18</sup> 32.6	(X)	(X)

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
	INDUSTRIAL INORGANIC CHEMICALS, N.E.C.--Continued										
	Other inorganic chemicals, n.e.c.--Continued As reported in Current Industrial Reports M28A--Continued										
28199 01	Reagent and high purity grades of inorganic chemicals refined from purchased technical grades.	(X)	(X)	54.0	(X)	(X)	(X)	(X)	36.9	(X)	(X)
28199 02	Antimony compounds, (excluding pigment grades).....	(X)	(X)	6.3	(X)	(X)	(X)	(X)	5.1	(X)	(X)
28199 03	Arsenic compounds, including white arsenic.....	(X)	(X)	1.4	(X)	(X)	(X)	(X)	1.2	(X)	(X)
28199 04	Barium compounds: Carbonate (precipitated) (100% BaCO <sub>3</sub> ).....	82.2	59.6	6.6	59.6	6.6	78.9	54.6	5.9	(D)	(D)
28199 06	Other barium compounds <sup>17</sup> ..	(X)	(X)	11.1	(X)	(X)	(X)	(X)	10.1	(X)	(X)
28199 07	Bismuth compounds: Subcarbonate (100% (Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> )·H <sub>2</sub> O).....	0.1	0.1	0.6	0.1	0.6	0.1	(Z)	(Z)	(Z)	(Z)
28199 09	Other bismuth compounds...	(X)	(X)	( <sup>18</sup> )	(X)	(X)	(X)	( <sup>18</sup> )	( <sup>18</sup> )	(X)	(X)
28199 10	Bromine (100% Br).....	(NA)	26.1	8.9	(D)	(D)	(NA)	16.4	5.9	(D)	(D)
28199 11	Cadmium compounds.....	(X)	(X)	7.0	(X)	(X)	(X)	(X)	3.3	(X)	(X)
28199 12	Calcium compounds: Carbide (commercial).....	912.3	564.4	53.2	(D)	(D)	1,109.1	641.4	60.7	284.6	25.1
28199 13	Carbonate (precipitated) (100% CaCO <sub>3</sub> ).....	190.5	168.8	9.1	(D)	(D)	158.8	139.7	7.7	(D)	(D)
28199 14	Chloride: Solid, excluding flake (73-75% CaCl <sub>2</sub> ).....	649.9	635.2	20.4	(D)	(D)	679.3	679.5	21.0	(D)	(D)
28199 15	Flake (77-80% CaCl <sub>2</sub> )....										
28199 16	Liquid (40-45% CaCl <sub>2</sub> )...										
	Phosphate: Dibasic: Animal feed grades....	391.7	371.2	31.5	(D)	(D)	239.9	235.4	20.0	(D)	(D)
28199 20	Other grades (except fertilizer grades)...										
28199 18	Monobasis.....	(X)	(X)	9.9	(X)	(X)	(X)	(X)	13.4	(X)	(X)
28199 21	Tribasic.....										
28199 23	Other inorganic calcium compounds.....	(X)	(X)	7.1	(X)	(X)	(X)	(X)	6.4	(X)	(X)
28199 24	Carbon, activated: <sup>20</sup> Decolorizing.....	83.1	84.8	23.2	(D)	(D)	72.1	68.6	19.8	(D)	(D)
28199 26	Water purification.....										
28199 29	Chromium compounds: Bichromates and chromates:	135.3	94.0	23.0	(D)	(D)	133.9	88.2	21.2	(D)	(D)
28199 31	Sodium (hydrous).....										
28199 32	Other chromium compounds including potassium bichromate and chromate (hydrous) (excluding chrome colors).....	(X)	(X)	10.7	(X)	(X)	(X)	(X)	7.0	(X)	(X)
28199 33	Cobalt compounds.....	(X)	(X)	3.9	(X)	(X)	(X)	(X)	1.8	(X)	(X)
28199 35	Copper compounds: Cuprous oxide (100% Cu <sub>2</sub> O).	1.6	1.6	1.7	(D)	(D)	1.3	1.2	1.1	(D)	(D)
28199 36	Copper sulfate (100% CuSO <sub>4</sub> ·5H <sub>2</sub> O).....	46.0	46.0	15.1	(D)	(D)	39.7	37.4	9.1	(D)	(D)
28199 37	Other copper compounds (including copper cyanide, and cupric oxide).....	(X)	(X)	5.9	(X)	(X)	(X)	(X)	4.6	(X)	(X)

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
	INDUSTRIAL INORGANIC CHEMICALS, N.E.C.--Continued										
	Other inorganic chemicals, n.e.c.--Continued										
	As reported in Current Industrial Reports M28A--Continued										
28199 38	Gold compounds.....	(X)	(X)	( <sup>21</sup> )	(X)	(X)	(X)	(X)	21.6	(X)	(X)
28199 39	Hydrogen peroxide.....	59.4	41.2	28.8	(D)	(D)	39.1	31.6	26.3	27.3	22.4
	Iron compounds:										
28199 42	Ferric chloride (100% FeCl <sub>3</sub> ).....	38.6	34.8	4.5	(D)	(D)	37.1	36.1	4.4	46.1	4.4
28199 43	Ferrous sulfate (100% FeSO <sub>4</sub> ·7H <sub>2</sub> O).....	196.6	112.0	1.0	(D)	(D)	159.8	101.0	1.0	(D)	(D)
28199 44	Other iron compounds <sup>17</sup> ....	(X)	(X)	4.2	(X)	(X)	(X)	(X)	2.6	(X)	(X)
	Lead compounds:										
28199 45	Nitrate.....	(X)	(X)	8.9	(X)	(X)	(X)	(X)	(22)	(X)	(X)
28199 47	Other lead compounds (excluding pigment grade)...										
	Magnesium compounds:										
28199 48	Sulfate, including Epsom salts (100% MgSO <sub>4</sub> ).....	(X)	(X)	33.2	(X)	(X)	(X)	(X)	26.2	(X)	(X)
28199 49	Other magnesium compounds.										
	Manganese compounds:										
28199 50	Sulfate (100% MnSO <sub>4</sub> ·4H <sub>2</sub> O).	37.1	31.2	2.4	(D)	(D)	34.3	33.9	3.0	(D)	(D)
28199 52	Other manganese compounds, including potassium and other permanganates and manganese dioxide, battery grade.....	(X)	(X)	9.8	(X)	(X)	(X)	(X)	6.7	(X)	(X)
	Mercury and compounds:										
28199 53	Mercury, redistilled (pounds).....	447.9	404.1	2.3	404.1	2.3	581.9	500.8	1.6	500.8	1.6
28199 55	Other mercuric compounds, except mercuric fulminate and medicinal grades.....	(X)	(X)	3.0	(X)	(X)	(X)	(X)	3.3	(X)	(X)
28199 90	Molybdenum, platinum, radium, strontinum, tantalum, thallium, and tungsten compounds.....	(X)	(X)	59.0	(X)	(X)	(X)	(X)	59.8	(X)	(X)
	Nickel compounds:										
28199 56	Sulfate (100% NiSO <sub>4</sub> ·6H <sub>2</sub> O).	14.8	15.0	7.2	15.0	7.2	10.2	8.6	4.3	(D)	(D)
28199 57	Other nickel compounds....	(X)	(X)	3.9	(X)	(X)	(X)	(X)	2.9	(X)	(X)
	Phosphorous and compounds:										
	Phosphorous elemental:										
28199 58	White (yellow) (technical).	587.0	536.2	184.1	64.7	20.1	488.1	427.0	146.0	42.1	12.9
28199 59	Red (technical).....										
28199 60	Oxychloride (100% POCl <sub>3</sub> )..	32.8	21.1	4.3	(D)	(D)	23.9	18.0	4.0	(D)	(D)
28199 62	Pentoxide (100% P <sub>2</sub> O <sub>5</sub> ).....	-	-	-	-	-	9.8	7.4	1.6	(D)	(D)
28199 63	Trichloride (chloride) (100% PCl <sub>3</sub> ).....	51.1	16.8	3.4	13.8	2.8	26.8	9.6	2.1	7.7	1.8
28199 61	Pentasulfide (100% P <sub>2</sub> S <sub>5</sub> )..	48.7	28.1	6.1	(D)	(D)	34.0	30.1	7.0	(D)	(D)
28199 64	Other phosphorous compounds.....	(X)	(X)	( <sup>21</sup> )	(X)	(X)	(X)	(X)	1.7	(X)	(X)
28199 65	Rare earth compounds.....	(X)	(X)	13.2	(X)	(X)	(X)	(X)	5.1	(X)	(X)
28199 66	Selenium compounds.....	(X)	(X)	1.4	(X)	(X)	(X)	(X)	1.3	(X)	(X)
	Silica gel:										
28199 68	Botadiene catalyst grade..	(X)	(X)	53.6	(X)	(X)	(X)	(X)	40.7	(X)	(X)
28199 69	Desiccant grade.....										
28199 70	Aviation gas catalyst grade.....										

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967					1963				
		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments		Production for all purposes (1,000 short tons)	Total shipments including interplant transfers		Commercial shipments	
			Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)	Quantity (1,000 short tons)	Value (million dollars)
	INDUSTRIAL INORGANIC CHEMICALS, N.E.C.—Continued										
	Other inorganic chemicals, n.e.c.—Continued										
	As reported in Current Industrial Reports M28A—Continued										
28199 71	Silver compounds: Cyanide (100% AgCN) (quantity in thousand av. ounces).....	2.7	2.6	3.0	2.6	3.0	2.0	2.0	1.8	2.0	1.8
28199 72	Nitrate (100% AgNO <sub>3</sub> ) (quantity in thousand av. ounces) <sup>23</sup> .....	121.3	55.2	42.3	55.2	42.3	94.6	42.4	30.6	42.4	30.6
28199 73	Other silver compounds....	(X)	(X)	4.7	(X)	(X)	(X)	(X)	3.7	(X)	(X)
28199 74	Sulfur, recovered elemental.	<sup>24</sup> 1,268.0	<sup>24</sup> 1,284.0	<sup>24</sup> 41.0	(D)	(D)	893.3	841.8	18.0	(D)	(D)
28199 75	Sulfur compounds: Dioxide (produced for sale) (100% SO <sub>2</sub> ).....	96.3	74.5	4.8	(D)	(D)	73.2	57.9	3.8	(D)	(D)
28199 77	Other sulfur compounds (including sulfur chloride).....	(X)	(X)	( <sup>25</sup> )	(X)	(X)	(X)	(X)	14.7	(X)	(X)
28199 80	Tin compounds: Oxide (stannic) (100% SnO <sub>2</sub> ).....	0.4	0.4	1.5	0.4	1.5	0.7	0.6	1.6	(D)	(D)
28199 81	Other tin compounds (including stannic and stannous chloride).....	(X)	(X)	( <sup>25</sup> )	(X)	(X)	(X)	(X)	7.0	(X)	(X)
28199 84	Zinc compounds: Chloride (100% ZnCl <sub>2</sub> ).....	(D)	(D)	( <sup>25</sup> )	(D)	(D)	25.2	20.0	4.2	(D)	(D)
28199 87	Sulfate (100% ZnSO <sub>4</sub> ·7H <sub>2</sub> O).	57.3	46.8	5.7	(D)	(D)	66.1	52.1	4.5	(D)	(D)
28199 88	Other zinc compounds excluding pigment grades <sup>26</sup> .	(X)	(X)	12.3	(X)	(X)	(X)	(X)	7.6	(X)	(X)
28199 93	Radioactive isotopes shipped from non-AEC plants producing isotopes <sup>27</sup> .....	(X)	(X)	7.4	(X)	(X)	(X)	(X)	( <sup>28</sup> )	(X)	(X)
28199 95	Radiation sources and other radioactive materials produced from purchased isotopes <sup>27</sup> .....	(X)	(X)	15.7	(X)	(X)	(X)	(X)	( <sup>28</sup> )	(X)	(X)
28199 98	All other inorganic chemicals, n.e.c. <sup>18 20 22 25</sup> .....	(X)	(X)	<sup>18</sup> 158.6	(X)	(X)	(X)	(X)	95.8	(X)	(X)
28199 00	Industrial inorganic chemicals, n.s.k., reported in the census of manufactures. (For companies with 10 or more employees. See Note.).....	(X)	(X)	30.4	(X)	(X)	(X)	(X)	11.1	(X)	(X)
28190 02	Industrial inorganic chemicals, n.s.k., reported in the census of manufactures. (For companies with less than 10 employees. See Note.).....	(X)	(X)	8.3	(X)	(X)	(X)	(X)	(X)	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. <sup>18</sup>Revised. (X) Not applicable.

<sup>1</sup>Includes value of inorganic chemicals shipped by establishments classified in "manufacturing" and "nonmanufacturing" industries. The value of shipments reported by "nonmanufacturing" establishments classified in the mineral industries and the Tennessee Valley Authority for total Industrial Inorganic Chemicals, n.e.c., code 2819--amounted to \$139,673 thousand for 1967 and \$161,157 for 1963.

Footnotes continued on next page.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

## FOOTNOTES FOR TABLE 3-2819--Continued

<sup>2</sup>Source: Current Industrial Reports series M28A, Inorganic Chemicals and Gases, 1967. The 1963 data include all revised figures published in the Current Industrial Reports series.

<sup>3</sup>Excludes data for byproduct ammonia liquor and ammonium sulfate published by the Bureau of Mines. The quantities of byproduct ammonia liquor (NH<sub>3</sub> content) produced were 14,471 short tons in 1967 and 14,524 short tons in 1963. The quantities of byproduct ammonium sulfate produced were 745,000 short tons in 1967 and 620,821 short tons in 1963.

<sup>4</sup>Codes 2819141 and 2819143 combined with code 2819159.

<sup>5</sup>Represents total amount of original solution produced, including amounts used for fertilizer, explosive, and other uses and amounts consumed in manufacturing other products such as nitrogen solutions (product code 2819155).

<sup>6</sup>Excludes amounts converted to solid ammonium nitrate.

<sup>7</sup>Codes 2819243 and 2819253 combined with codes 2819231 and 2819263 for 1963.

<sup>8</sup>Represents complete coverage of all manufacturers by the inclusion of estimates which account for less than 5 percent of the total.

<sup>9</sup>Includes anhydrous hydrochloric acid shipments of 171,433 short tons, valued at \$8,211 thousand for 1967 and 117,450 short tons, valued at \$7,345 thousand for 1963. The quantities of anhydrous hydrochloric acid produced amounted to 628,502 short tons in 1967 and 282,693 short tons, in 1963.

<sup>10</sup>Code 2819451 and code 2819467 combined with code 2819498.

<sup>11</sup>In addition 4,732 short tons in 1967 and 3,327 short tons in 1963 were produced by municipalities.

<sup>12</sup>Code 2819724 combined with code 2819787 for 1963.

<sup>13</sup>Represents quantities produced only for sale or interplant transfer.

<sup>14</sup>Code 2819739 combined with code 2819787 for 1963.

<sup>15</sup>Excludes quantities consumed in the manufacture of meta-, ortho-, and sesquisilicates. Shipments figures include unspecified amounts shipped to other plants for use in manufacturing meta-, ortho-, or sesquisilicates.

<sup>16</sup>Excludes amounts converted to concentrated sodium sulfide.

<sup>17</sup>Excludes pigment grades.

<sup>18</sup>Code 2819909 combined with code 2819998 for 1967.

<sup>19</sup>Excludes quantities of liquid used to produce solid calcium chloride.

<sup>20</sup>Value of activated carbon, deodorizing grade, and solvent recovery and gas absorption grade included in code 2819998.

<sup>21</sup>Codes 2819938 and 2819964 combined with code 2819998 for 1967.

<sup>22</sup>Codes 2819945 and 2819947 combined with code 2819998 for 1967.

<sup>23</sup>Includes unspecified amounts produced and shipped on contract basis.

<sup>24</sup>Collected by Bureau of Mines.

<sup>25</sup>Codes 2819977 and 2819981 combined with code 2819998 for 1967.

<sup>26</sup>Code 2819984 combined with code 2819988 for 1967.

<sup>27</sup>Based on data published in Current Industrial Reports Series MA-38Q(67)-1, "Selected Atomic Energy Products."

<sup>28</sup>Codes 2819993 and 2819995 combined with code 2819998 for 1963



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967				1963			
				Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)	Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)
					Quantity	Delivered cost (million dollars)			Quantity	Delivered cost (million dollars)	
	INDUSTRY 2819.—INDUSTRIAL INORGANIC CHEMICALS, N.E.C.										
	Materials, containers, and supplies, total.....			(X)	(X)	1,505.1	(X)	(X)	(X)	1,141.6	(X)
	Inorganic chemicals:										
	Acids, except spent acids:										
281944	Hydrochloric acid.....	100% HCl..	1,000 short tons.....	(S)	(S)	4.2	(D)	(NA)	(NA)	3.4	52.9
281946	Hydrofluoric acid.....	100% HF...	...do.....	(S)	(S)	3.3	(S)	(NA)	(NA)	2.7	22.4
281911	Nitric acid.....	100% HNO <sub>3</sub> ..	...do.....	3,074.5	93.9	4.2	2,980.6	2,679.3	21.0	1.5	2,658.3
281948	Phosphoric acid.....	100% P <sub>2</sub> O <sub>5</sub> ..	...do.....	875.6	210.8	24.4	664.8	792.7	110.6	17.1	682.0
281931	Sulfuric acid.....	100% H <sub>2</sub> SO <sub>4</sub>	...do.....	3,285.1	1,576.7	29.5	1,708.4	2,914.8	1,082.9	18.5	1,831.9
281912	Ammonia, synthetic, anhydrous...	100% NH <sub>3</sub> ..	...do.....	3,160.3	696.4	33.1	2,463.9	2,586.2	266.3	17.3	2,319.9
281211	Chlorine.....	100% Cl...	...do.....	(S)	215.0	13.3	(S)	633.6	123.4	8.6	510.2
281996	Phosphorous, elemental.....	Technical.	...do.....	403.1	381.5	112.5	21.5	303.2	284.1	78.7	19.1
281228	Sodium carbonate (soda ash).....	58% Na <sub>2</sub> O..	...do.....	1,532.8	(D)	( <sup>1</sup> )	(D)	1,310.4	1,310.4	46.9	-
281238	Sodium hydroxide (caustic soda).	100% NaOH.	...do.....	733.0	686.1	29.1	46.9	529.7	424.3	20.6	105.4
	Organic chemicals:										
281852	Alcohol, ethyl (pure and de-natured).....			(S)	(S)	1.9	-	(NA)	(NA)	1.1	-
281820	Other alcohols, including amyl, butyl, methyl, and propyl.....			(S)	(S)	5.5	-	(NA)	(NA)	2.0	-
281513	Phenol.....	100%.....	Million lbs.	63.3	63.3	5.5	-	(NA)	(NA)	5.6	-
	Crude materials: <sup>2</sup>										
105101	Bauxite.....		1,000 short tons.....	15,771.3	15,771.3	229.8	-	12,584.5	12,584.5	176.4	-
147501	Phosphate rock.....		1,000 long tons.....	5,669.6	5,669.6	45.0	-	(NA)	(NA)	37.6	-
147901	Pyrites.....		...do.....	361.8	361.8	4.2	-	1,005.8	1,005.8	11.1	-
147701	Sulfur.....		...do.....	2,431.4	2,431.4	89.8	-	1,804.3	1,804.3	45.1	-
281932	Sulfuric acid sludge (decomposition acid).....		1,000 short tons.....	(S)	(S)	5.4	-	1,032.2	1,032.2	5.6	-
333348	Zinc and zinc-base alloy refinery shapes.....		...do.....	23.0	23.0	5.3	-	(NA)	(NA)	1.8	-
	Used as raw material:										
121011	Bituminous coal and lignite.....		...do.....	224.3	224.3	2.1	-	407.0	407.0	1.8	-
331210	Coke, including breeze.....		...do.....	993.4	993.4	19.6	-	782.4	782.4	14.4	-
131302	Natural gas.....		Mil. cu. ft.	223,060	223,060	65.0	-	118,921	118,921	34.7	-
970099	All other materials and components, parts, containers, and supplies consumed.....			(X)	(X)	<sup>1</sup> 628.1	(X)	(X)	(X)	519.7	(X)
976000	Materials, containers and supplies, n.s.k. <sup>3</sup> .....			(X)	(X)	144.3	(X)	(X)	(X)	69.4	(X)

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>Code 281228 combined with code 970099 for 1967.

<sup>2</sup>Excludes quantities of sulfur derived from other sources such as copper pyrites, hydrogen sulfide and smelter gas.

<sup>3</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2819, these small establishments accounted for approximately 0.0 percent of payrolls and 0.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28B-1

## INDUSTRY SERIES

**preliminary  
report**

### Plastics materials and resins

SIC Code 2821

The Plastics Materials, Synthetic Resins and Nonvulcanizable Elastomers Industry includes establishments primarily engaged in manufacturing synthetic resins, plastics materials, and nonvulcanizable elastomers. Important products of this industry include: cellulose plastic materials; phenolic and other tar acid resins; urea and melamine resins; vinyl resins; styrene resins; alkyd resins; acrylic resins; polyethylene resins; polypropylene resins; rosin modified resins; coumarone-indene and petroleum polymer resins; and miscellaneous resins including polyamide resins, silicones, polyisobutylenes, polyesters, polycarbonate resins, acetal resins, and fluoro-hydrocarbon resins; vulcanized fiber; casein

plastics; and regenerated cellulose. This classification does not include nonchemical manufacturers who merely purchase resin or plastics materials to produce fabricated plastics products, film, and sheets, which are classified in industry 3079.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Plastics Materials and Resins Industry

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2821.--PLASTICS MATERIALS AND RESINS														
1967 Census....	661	341	70.8	569.9	47.0	96.0	334.3	1,657.3	1,855.1	3,500.5	311.2	397.5	83	(NA)
1966 ASM <sup>1</sup> .....	(NA)	(NA)	70.8	556.9	47.5	100.0	328.7	1,702.8	1,853.6	3,532.9	300.0	376.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	66.0	498.9	44.7	93.6	301.8	1,479.7	1,646.6	3,117.7	219.8	336.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	62.6	461.5	42.0	88.9	278.2	1,347.0	1,425.3	2,773.9	209.5	319.1	(NA)	(NA)
1963 Census....	509	256	61.4	437.6	41.4	86.1	264.5	1,202.3	1,371.3	2,571.5	137.8	321.8	84	64
1962 ASM <sup>1</sup> .....	(NA)	(NA)	57.7	401.5	39.5	82.2	245.0	1,102.0	1,279.2	2,372.1	149.5	294.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	54.5	369.3	37.0	77.7	222.1	968.5	1,163.1	2,124.5	157.3	271.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	55.3	359.0	37.8	77.9	216.9	1,041.4	1,167.3	2,183.0	155.0	270.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	54.1	344.4	37.2	77.7	211.1	1,110.7	1,145.6	2,236.3	132.0	255.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	349	196	51.0	308.2	35.3	72.0	189.3	872.0	973.0	1,846.7	178.9	226.7	86	71

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

amounted to \$3,500.5 million, an increase of 36 percent compared with 1963. Value added by manufacture at \$1,657.3 million in 1967 was 38 percent more than value added in 1963. Average employment in the industry showed an increase of 15 percent from 1963 to a total of 70.8 thousand employees in 1967.

Of the \$3,500.5 million total value of shipments and other receipts of establishments classified as plastics materials and resins, \$592.6

million were products primary to other industries; and \$72.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 83 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 84 percent in 1963.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	All em- ployees  (1,000)	Value added by manufac- ture  (million dollars)
	Total  (number)	With 20 employ- ees or more (number)	Number  (1,000)	Payroll  (million dollars)	Number  (1,000)	Man-hours  (millions)	Wages  (million dollars)						
	INDUSTRY 2821.--PLASTICS MATERIALS AND RESINS												
United States, total.....	661	341	70.8	569.9	47.0	96.0	334.3	1,657.3	1,855.1	3,500.5	311.2	61.4	1,202.3
Northeast.....	270	147	30.3	240.7	19.6	40.2	134.7	560.8	727.4	1,290.0	80.4	29.2	479.8
East North Central....	141	68	13.2	109.0	9.4	19.4	71.0	324.0	350.3	668.2	(D)	10.6	212.9
Indiana.....	11	6	1.2	8.8	0.8	1.9	5.7	27.6	16.4	44.7	1.5	(D)	(D)
Wisconsin.....	15	3	0.7	6.4	0.5	1.1	3.7	16.6	18.5	34.8	(D)	0.6	10.9
South Atlantic.....	59	36	11.3	87.0	7.2	14.3	48.5	275.1	231.8	506.9	(D)	(D)	(D)
Delaware.....	12	10	1.7	13.1	1.0	2.1	6.3	32.3	25.1	55.5	14.5	(D)	(D)
Maryland.....	7	3	0.2	1.2	0.2	0.3	0.9	3.1	5.1	8.1	0.2	(D)	(D)
North Carolina.....	9	5	0.9	7.2	0.6	1.1	3.4	16.9	16.2	33.5	1.4	1.0	19.5
South Carolina.....	6	4	0.3	1.3	0.2	0.3	0.7	5.1	11.0	15.7	1.1	(D)	(D)
East South Central....	26	17	5.5	42.8	3.8	7.8	27.6	160.8	139.5	298.4	33.0	(D)	(D)
West South Central....	36	19	5.0	45.7	3.4	7.2	28.6	202.1	231.8	428.9	(D)	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (B) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Total value of shipments including interplant, transfers (million dollars)	
		1967	1963
2821- -- 30791 --	PLASTICS MATERIALS, SYNTHETIC RESINS, AND NONVULCANIZED ELASTOMERS, TOTAL.....	<sup>1</sup> 4,503.9	<sup>1</sup> 3,301.4
	Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes:		
	As reported in the census of manufactures.....	(NA)	688.1
28211 --	Made from resins produced in same establishment.....	215.1	166.7
30791 --	Made from purchased resins.....	(NA)	521.4
	As reported in Current Industrial Report M30D.....	1,041.5	672.0
28211 --	Made from resins produced in same establishment.....	184.6	166.7
30791 --	Made from purchased resins.....	856.9	505.3
	Unsupported film, sheets, and sheeting, total.....	901.5	580.6
	Cellulosic, total.....	69.2	56.8
30791 10	Less than 3.0 mils and not specified by gauge.....	15.8	34.3
30791 11			
28211 11	3.0 mils to 9.9 mils.....	28.4	11.1
30791 13			
30791 15	10.0 mils and over.....	25.0	11.3
28211 15			
	Polyethylene, total.....	270.5	167.7
30791 21	Less than 3.0 mils.....	200.8	126.2
28211 21			
30791 23	3.0 mils to 9.9 mils.....	54.6	30.8
28211 23			
30791 25	10.0 mils and over.....	5.7	4.3
28211 25			
30791 20	Not specified by gauge.....	9.4	6.4
	Polypropylene, total.....	27.7	15.8
30791 31	Less than 3.0 mils.....	21.9	14.7
28211 31			
30791 33-35	3.0 mils and over.....	5.8	1.2
	Polystyrene, total.....	37.2	18.5
30791 41	Less than 3.0 mils.....	5.3	7.1
28211 41			
30791 43	3.0 mils to 9.9 mils.....	6.5	11.4
30791 45			
28211 45	10.0 mils and over.....	25.4	
30791 51	Styrenecopolymer, all gauges.....	2.1	2.7
30791 55			
	Vinyl and vinyl copolymer, total.....	275.8	183.6
30791 61	Less than 3.0 mils and not specified by gauge.....	<sup>2</sup> 82.0	39.1
28211 61			
30791 63	3.0 mils to 9.9 mils.....	72.3	44.8
28211 63			
30791 65	10.0 mils and over.....	80.0	67.3
28211 65			
30791 60	Not specified by gauge.....	(2)	15.7
28211 60			
30791 70-75	Other unsupported plastic film, sheets, and sheeting, all gauges.....	218.9	135.6
28211 71-75			
	Unsupported plastics rods, tubes, and other stock shapes (excluding foam), total.....	138.0	76.6
30791 81	Acrylate and methacrylate.....	6.7	3.5
30781 83	Cellulosics.....	18.1	9.8
28211 83			
30791 85	Polyamide (nylon).....	8.0	4.9
30791 87	Polyethylene.....	6.1	7.1
30791 89	Polypropylene.....	17.5	3.2
30791 91	Polystyrene.....	6.5	6.3
30791 93	Styrene copolymer.....	1.3	1.4
30791 95	Vinyl and vinyl copolymer.....	35.7	19.2
28211 95			
30791 97	Other unsupported plastics rods, tubes, and other stock shapes.....	38.1	21.2
30791 00	Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes, n.s.k.....	2.0	14.7
28211 00			

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Production for all purposes	Total shipments, including interplant transfers		Production for all purposes	Total shipments, including interplant transfers	
			Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
2821- -- 30791 --	PLASTICS MATERIALS, SYNTHETIC RESINS, AND NONVULCANIZED ELASTOMERS--Continued						
28212	Regenerated cellulosic products, except rayon.....	(X)	(X)	326.9	(X)	(X)	327.6
28212 13	Sheets and rolls (cellophane):						
28212 15	Uncoated and nitrocellulose coated.....	393.1	382.8	224.7	427.1	422.5	249.8
	Polymer coated.....						
28212 51	Sponges.....	(S)	(S)	102.2	11.9	12.0	14.2
28212 31	Caps and bands.....						
28212 98	Other regenerated cellulosic products.....						
28212 00	Regenerated cellulosic products, except rayon, n.s.k.....						
28213 --	Thermoplastic resins, excluding resins for protective coatings....	(X)	(X)	1,916.1	(X)	(X)	1,311.5
	Polyethylene resins: <sup>3</sup>						
28213 21	Low and medium density (0.940 and under).....	2,450.8	2,409.0	352.2	1,783.5	1,785.9	325.3
28213 31	High density (over 0.940).....	1,426.3	1,269.0	204.9	505.6	483.6	112.1
28213 51	Polypropylene resins <sup>3</sup> .....	599.4	608.5	117.7	202.0	181.3	48.2
28213 55	Other olefin polymers and copolymers.....	114.2	101.7	24.1	-	-	-
	Styrene resins: <sup>3</sup>						
28213 61	Polystyrene, including rubber modified.....	1,600.5	1,411.0	234.9	1,094.9	975.0	188.5
28213 63	Styrene-acrylonitrile.....	52.4	50.6	12.1	39.8	32.2	6.5
28213 65	Acrylonitrile-butadiene-styrene.....	341.0	329.4	107.4	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
28213 67	Other styrene copolymers, containing 50 percent or more styrene.....	106.0	105.3	26.5	83.0	83.7	22.5
28213 69	All other styrene and styrene derivative polymers and copolymers, including styrene-divinyl benzene.....	131.7	119.1	36.7	<sup>4</sup> 216.3	<sup>4</sup> 197.3	<sup>4</sup> 78.1
	Vinyl resins: <sup>3</sup>						
28213 71	Polyvinyl chloride and copolymers, containing 50 percent or more polyvinyl chloride.....	2,589.0	2,334.5	357.4	1,103.1	1,063.6	202.3
28213 73	Polyvinyl acetate.....	336.5	322.1	70.2	179.5	170.1	37.9
28213 75	All other vinyl and vinyl copolymer resins.....	246.2	194.3	68.1	137.6	128.7	89.4
28213 81	Acrylic resins <sup>3</sup> .....	197.5	198.0	75.4	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
28213 83	Fluorocarbon <sup>3</sup> .....	6.6	6.1	20.6	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
28213 85	Polyamide (nylon) resins <sup>3</sup> .....	98.7	89.7	68.5	58.8	50.6	45.3
28213 89	Other thermoplastic resins and materials such as cellulose acetate, polycarbonate, polyterpene etc. <sup>3</sup> .....	324.5	305.2	138.7	244.9	244.4	174.4
28213 00	Thermoplastic resins and plastics materials, excluding resins and plastics for protective coatings, n.s.k.....	(S)	(S)	0.7	(S)	(S)	1.1
28214 --	Thermosetting resins, excluding resins for protective coatings, total.....	(X)	(X)	541.2	(X)	(X)	420.0
28214 11	Melamine-formaldehyde resins <sup>3</sup> .....	126.6	128.3	50.4	128.0	118.2	48.2
28214 21	Phenolic and other tar-acid resins <sup>3</sup> .....	680.6	616.5	131.4	593.9	579.8	148.2
28214 31	Polyester resins <sup>3</sup> .....	376.1	359.9	111.6	263.3	244.0	77.5
28214 41	Urea-formaldehyde resins <sup>3</sup> .....	475.4	452.4	75.9	312.0	296.4	54.0
28214 73	Coumarone indene and petroleum polymer resins <sup>3</sup> .....	92.6	89.8	30.7	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
28214 75	Epoxy resins <sup>3</sup> .....	308.1	314.6	27.8	280.7	262.6	24.4
28214 77	Polyurethane and diisocyanate resins <sup>3</sup> .....	79.6	72.9	40.1	33.0	32.6	17.7
28214 79	Silicone resins <sup>3</sup> .....	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	9.3	8.8	22.7
28214 98	Other thermosetting resins and plastics materials, including alkyd (not for protective coatings), furan, acetone formaldehyde, etc. <sup>3</sup> .....	<sup>7</sup> 249.4	<sup>7</sup> 204.7	<sup>7</sup> 70.5	(S)	(S)	<sup>6</sup> 27.4
28214 00	Thermosetting resins and plastics materials, excluding resins and plastics for protective coatings, n.s.k.....	(S)	(S)	2.8	(S)	(S)	
28215 --	Synthetic resin adhesives, from resins manufactured in same establishment.....	(X)	(X)	51.6	(X)	(X)	28.3
28215 11	Epoxy.....	28.7	24.8	14.9	11.2	7.7	5.1
28215 21	Phenolic.....	( <sup>8</sup> )	( <sup>8</sup> )	( <sup>8</sup> )	51.8	53.2	6.8
28215 31	Urea and melamine.....	<sup>8</sup> 125.0	<sup>8</sup> 123.8	<sup>8</sup> 12.9	72.4	73.1	7.2
28215 98	All other, including combinations.....	205.5	203.8	23.2	30.4	29.6	9.1
28215 00	Synthetic resin adhesives, from resins produced in this establishment, n.s.k.....	(S)	(S)	0.6	(S)	(S)	0.2
28216 --	Synthetic resins for protective coatings.....	1,228.0	1,176.8	284.9	1,098.1	1,002.1	272.2
28216 11	For use in latex base emulsion paints including acrylic, styrene-butadiene, vinyl, etc.....	495.5	470.6	123.3	530.7	471.2	122.7
28216 21	For use in other types of paint.....	725.2	699.2	159.3	567.4	530.9	149.6
28216 00	Synthetic resins for protective coatings, n.s.k.....	7.3	7.0	2.3	-	-	-

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963--Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Production for all purposes	Total shipments, including interplant transfers		Production for all purposes	Total shipments, including interplant transfers	
			Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
2821- -- 30791 --	PLASTICS MATERIALS, SYNTHETIC RESINS, AND NONVULCANIZED ELASTOMERS--Continued						
28217 11	Custom compounding of purchased resins.....	(X)	(X)	235.8	(X)	(X)	184.6
28219 --	Plastics and resin materials, n.e.c.....	(X)	(X)	68.3	(X)	(X)	60.4
	Monofilaments, not suitable for further manufacturing on textile processing equipment:						
28219 11	Polyamide (nylon).....	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	7.1	6.9	16.7
28219 13	Polyethylene.....	29.1	29.5	6.1	1.1	1.1	0.5
28219 15	Polypropylene.....	1.7	1.7	2.7	2.5	2.5	1.8
28219 19	Other.....	<sup>9</sup> 102.5	<sup>9</sup> 56.8	<sup>9</sup> 26.6	(S)	(S)	5.7
28219 31	Cellulose and other plastic film from scrap.....	( <sup>10</sup> )	( <sup>10</sup> )	( <sup>10</sup> )	(X)	(X)	5.1
	Vulcanized fiber:						
28219 41	Sheets.....	36.1	36.4	20.5	26.6	25.9	12.1
28219 43	Rods, tubes, and hollowware, semimanufactured.....				3.5	3.7	6.2
28219 98	Other plastics and resin materials, n.e.c., excluding photographic film, rayon, acetate, or nitro-explosives.....	(S)	(S)	<sup>10</sup> 9.4	(S)	(S)	6.3
28219 00	Plastics and resin materials, n.e.c., n.s.k.....	(X)	(X)	3.0	(X)	(X)	6.0
28210 00	Plastics materials, synthetic resins and nonvulcanized elastomers, n.s.k. (For companies with 10 or more employees. See Note.)....	(X)	(X)	26.9	(X)	(X)	8.7
28210 02	Plastics materials, synthetic resins and nonvulcanized elastomers, n.s.k. (For companies with less than 10 employees. See Note.)...	(X)	(X)	10.7			

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards. (X) Not applicable.

<sup>1</sup>For 1967, this total figure is not exactly comparable with 1963 because, for Product Classes 30791 and 28211, Unsupported Plastic Film, Sheets, etc., the data reported in the Current Industrial Reports Series M30D are used for 1967 instead of figures from the Census of Manufactures, because these latter data are not yet available. The difference should be statistically insignificant. Also, the 1963 data shown for products in Product Classes 30791 and 28211 reflect changes in 1963 data that have been published in the Current Industrial Reports Series M30D, Shipments of Selected Plastics Products, since the publication of the 1963 Census of Manufactures Volume II.

<sup>2</sup>Codes 3079160 - 2821160 included in 3079161 - 2821161.

<sup>3</sup>Quantities of resin produced and shipped were requested on a "resin content" basis for vinyl resins, and on a "dry" basis for all other resins.

<sup>4</sup>Code 2821365 included in code 2821369 in 1963.

<sup>5</sup>Code 2821381 and 2821383 included in code 2821389 in 1963.

<sup>6</sup>Code 2821477 included in code 2821498 in 1963.

<sup>7</sup>Code 2821479 included in code 2821498 in 1967.

<sup>8</sup>Code 2821521 included in code 2821598 in 1967.

<sup>9</sup>Code 2821911 included in code 2821919 in 1967.

<sup>10</sup>Code 2821931 included in code 2821998 in 1967.

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967			1963		
				Consumption of materials received from other establishments		Materials made and consumed in same plant	Consumption of materials received from other establishments		Materials made and consumed in same plant
				Quantity	Delivered cost (million dollars)		Quantity	Delivered cost (million dollars)	
	INDUSTRY 2821.--PLASTICS MATERIALS AND RESINS								
	Materials, containers, and supplies, total.....			(X)	1,723.1	(X)	(X)	1,259.6	(X)
281825	Acrylates and methacrylates, monomers.....	100%.....	Million lbs.....	436.8	74.5	(D)	222.1	44.3	(D)
281821	Acrylonitrile.....		..do.....	126.0	16.2	-	(NA)	(NA)	(NA)
281820	Alcohols, except ethyl.....		Million gals....	69.8	26.3	-	59.7	23.1	(X)
289501	Carbon black.....		Million lbs.....	21.0	4.0	-	7.8	1.2	-
281824	Cellulose acetate.....	100%.....	..do.....	120.3	27.3	-	(D)	-	-
261128	Cotton pulp.....	Air dry....	1,000 short tons	2.3	0.4	(X)	2.0	0.5	(X)
291171	Extender oils of petroleum origin.....		Million lbs.....	(S)	6.2	(X)	153.5	4.8	(X)
281823	Formaldehyde.....	37% HCHO...	..do.....	845.6	26.1	471.8	491.2	17.1	239.2
284141	Glycerin.....	100%.....	..do.....	65.4	14.9	-	73.6	13.1	-
281944	Hydrochloric acid.....	100% HCl...	1,000 short tons	10.2	0.7	-	14.0	0.7	8.4
	Liquefied refinery and petroleum gases:								
291167	Butadiene.....	100%.....	Million lbs.....	195.9	19.0	-	80.6	9.6	-
291165	Ethylene.....	100%.....	..do.....	2,110.9	83.1	-	858.6	38.6	(D)
291168	Other, (including isopreme, propylene isobutylene, etc.).....		..do.....	(S)	46.6	-	482.1	11.8	-
282515	Melamine.....	100%.....	..do.....	51.3	11.0	(D)	59.4	12.2	(D)
281513	Phenol.....	100%.....	..do.....	330.5	27.7	(D)	222.8	23.1	58.4
281514	Phthalic anhydride.....	100%.....	..do.....	164.9	18.9	(D)	100.5	11.1	3.2
281835	Plasticizers.....		..do.....	227.5	44.3	(D)	141.0	29.9	0.6
281833	Rubber processing chemicals (accelerators antioxidants, blowing agents, inhibitors, peptizers, etc.).....			(X)	5.3	-	(X)	4.9	-
284101	Soap and detergents.....		Million lbs.....	28.4	4.2	-	14.3	2.9	-
281238	Sodium hydroxide (caustic soda).....	100% NaOH..	1,000 short tons	189.6	7.2	-	221.6	12.7	(D)
281516	Styrene.....	100%.....	Million lbs.....	1,570.9	112.8	(D)	724.9	69.0	(D)
281931	Sulfuric acid, except spent acid.....	100% H2SO4.	1,000 short tons	352.3	7.0	(D)	312.5	5.6	(D)
282130	Thermoplastic resins, including modified resins.....		Million lbs.....	664.8	80.8	507.5	450.4	71.2	350.2
282140	Thermosetting resins.....	Dry.....	..do.....	137.3	28.3	37.5	41.2	12.8	128.7
281826	Urea.....	100%.....	..do.....	205.9	8.8	-	124.0	5.7	(X)
281827	Vinyl acetate, monomer.....	100%.....	..do.....	275.6	29.5	(D)	168.1	21.2	(D)
281828	Vinyl chloride, monomer.....	100%.....	..do.....	1,465.9	88.6	154.1	742.1	54.7	142.7
261101	Woodpulp (excluding wood flour).....	Air dry....	1,000 short tons	271.0	35.0	(X)	224.7	38.0	(X)
260091	Paper and paperboard containers.....			(X)	33.9	(X)	(X)	33.6	(X)
970099	All other materials and components, parts, containers, and supplies consumed.....			(X)	769.5	(X)	}	(X)	686.2
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup>			(X)	65.0	(X)			

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2821, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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OFFICIAL BUSINESS





# 1967 CENSUS OF MANUFACTURES

## INDUSTRY SERIES

### Synthetic rubber

SIC Code 2822

preliminary  
report

The Synthetic Rubber Industry includes establishments primarily engaged in the manufacture of synthetic rubber by polymerization or copolymerization.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Synthetic Rubber Industry amounted to \$916.1 million, an increase of 20 percent compared with 1963. Value added by manufacture at \$398.6 million in 1967 was 21 percent more than value

added in 1963. Average employment in the industry showed an increase of 6 percent from 1963 to a total of 12.5 thousand employees in 1967.

Of the \$916.1 million total value of shipments and other receipts of establishments classified in the Synthetic Rubber Industry, \$90.5 million were products primary to other industries; and \$14.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 90 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 92 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2822.— SYNTHETIC RUBBER													
1967 Census....	47	27	12.5	109.5	8.4	16.6	65.8	398.6	516.7	916.1	74.0	95.9	90	81
1966 ASM <sup>1</sup> .....	(NA)	(NA)	13.2	111.7	8.6	17.2	66.6	443.4	519.8	954.7	41.9	93.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	11.9	100.0	7.8	15.9	59.3	391.9	456.8	847.7	35.1	80.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	11.9	96.3	7.9	16.2	59.6	359.9	459.7	819.3	23.3	80.4	(NA)	(NA)
1963 Census....	24	24	11.8	93.5	7.8	15.9	56.6	329.5	435.4	763.9	32.3	76.8	92	80
1962 ASM <sup>1</sup> .....	(NA)	(NA)	11.6	88.2	7.7	15.7	53.6	318.4	439.0	759.0	41.9	74.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	10.9	79.8	7.5	14.5	49.1	291.8	406.3	696.4	59.5	80.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	11.0	77.3	7.6	15.3	48.3	275.6	457.3	725.8	48.2	78.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	9.9	67.8	6.9	14.1	43.9	281.5	434.8	703.3	17.3	69.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	18	17	9.3	60.9	6.2	12.5	37.6	197.9	341.0	536.3	16.0	53.8	95	83

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 2 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued August 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

The total value of synthetic rubber shipped by all producers in 1967 was \$1,005.7 million of which \$810.7 million, or 81 percent, were shipped by plants classified in industry 2822, Synthetic Rubber, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 80 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



## 1967 CENSUS OF MANUFACTURES

3

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2822.— SYNTHETIC RUBBER													
United States, total.....	47	27	12.5	109.5	8.4	16.6	65.8	398.6	516.7	916.1	74.0	11.8	329.5
South.....	28	20	10.1	88.1	7.2	14.3	56.2	315.6	440.1	757.4	67.4	(D)	(D)
West South Central...	19	14	6.6	56.8	4.7	9.4	35.9	200.0	333.0	536.3	43.6	(D)	(D)

Note: Only those regions, divisions, or States are listed that could be shown without disclosing the operations of individual companies, either directly or by subtraction from higher-level totals. Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Production for all purposes (million pounds)	Total shipments, including interplant transfers		Production for all purposes (million pounds)	Total shipments, including interplant transfers	
			Quantity (million pounds)	Value (million dollars)		Quantity (million pounds)	Value (million dollars)
28220 00	SYNTHETIC RUBBER <sup>1</sup> .....	<sup>2</sup> 4,380.4	<sup>2</sup> 4,369.1	1,005.7	(NA)	(NA)	862.3

(NA) Not available.

<sup>1</sup>For quantity of production of individual synthetic rubbers, refer to Current Industrial Reports Series M30A, Rubber: Supply and Distribution for the United States, Summary for 1967.

<sup>2</sup>Data for 1967 include the oil content of oil-extended elastomers. Data also include figures for polyurethane elastomers, which are not covered in Current Industrial Reports Series M30A.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967		1963	
				Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2822.—SYNTHETIC RUBBER						
	Materials, containers, and supplies, total.....			(X)	479.5	(X)	402.9
281821	Acrylonitrile.....		Million lbs.....	20.0	2.6	(NA)	(NA)
289501	Carbon black.....		..do.....	388.7	28.5	299.7	22.2
291171	Extender oils of petroleum origin.....		..do.....	561.1	11.0	401.2	8.1
291167	Butadiene.....	100%.....	..do.....	1,814.3	170.9	1,588.1	172.0
281833	Rubber processing chemicals (accelerators, antioxidants, blowing agents, inhibitors, peptizers, etc.).....			(X)	25.3	(X)	25.8
284101	Soap and detergents.....		Million lbs.....	139.7	14.9	108.5	12.3
281238	Sodium hydroxide (caustic soda).....	100% NaOH..	1000 short tons..	51.9	1.6	(X)	1.2
281516	Styrene.....	100%.....	Million lbs.....	443.3	37.2	458.7	47.9
281931	Sulfuric acid, except spent acid.....	100% H <sub>2</sub> SO <sub>4</sub>	1000 short tons..	61.3	1.1	25.7	0.4
260091	Paper and paperboard containers.....			(X)	6.3	(X)	7.0
970099	All other materials and components, parts, containers, and supplies consumed.....			(X)	175.7	(X)	106.0
971000	Materials, containers, supplies, n.s.k.....			(X)	4.4	(X)	

(NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

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More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

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### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28B-3

## INDUSTRY SERIES

**preliminary  
report**

### Cellulosic manmade fibers

SIC Code 2823

The Cellulosic Manmade Fibers Industry includes establishments primarily engaged in manufacturing cellulosic fibers (including cellulose acetate and regenerated cellulose such as rayon by the viscose or cuprammonium process) in the form of monofilament, yarn, staple or tow suitable for further manufacturing on spindles, looms, knitting machines or other textile processing equipment. Establishments primarily engaged in manufacturing textile glass fibers are classified in industry 3229.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Cellulosic Manmade Fibers Industry amounted to \$902.8 million, an increase of 23 percent compared with 1963. Value added by manufacture at \$506.8 million in 1967 was 23 percent more than value added in 1963. Average employment in the industry showed an increase of 6 percent from 1963 to a total of 31.9 thousand employees in 1967.

Of the \$902.8 million total value of shipments and other receipts of establishments classified as cellulosic manmade fibers, \$3.3 million were receipts for miscellaneous activities.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	End-of- year inven- tories  (million dollars)	Special- ization ratio  (per- cent)	Coverage ratio  (per- cent)
	Total	With 20 employ- ees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2823.--CELLULOSIC MANMADE FIBERS													
1967 Census....	23	20	31.9	198.2	25.3	50.0	141.1	506.8	383.3	902.8	51.6	108.8	(D)	(D)
1966 ASM <sup>1</sup> .....	(NA)	(NA)	34.3	208.8	27.5	55.0	150.7	550.6	395.2	924.1	89.2	120.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	34.0	198.0	27.2	54.3	141.8	515.6	393.8	903.2	73.9	90.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	31.9	182.9	25.5	52.0	132.5	483.5	353.3	838.8	83.7	90.9	(NA)	(NA)
1963 Census....	19	19	30.1	167.0	24.0	48.1	120.5	411.5	320.0	731.8	38.1	81.6	(D)	(D)
1962 ASM <sup>1</sup> .....	(NA)	(NA)	35.1	183.8	27.3	53.8	128.5	413.7	315.0	724.3	26.6	99.1	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	33.1	171.7	25.6	50.1	118.1	358.4	268.3	643.8	29.8	92.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	40.3	211.0	30.7	59.3	141.3	389.1	324.6	709.1	50.7	119.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	41.5	211.3	32.2	64.0	145.4	444.8	344.2	781.9	*49.2	114.7	(NA)	(NA)
1958 Census <sup>2</sup> ...	26	26	42.6	211.5	31.8	62.5	141.0	390.3	322.3	722.8	42.6	108.1	81	100

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals. (NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of cellulosic manmade fibers shipped by all producers in 1967 was \$681.0 million.

For an explanation of the terms used in the tables, see appendix at the end of this report.

**TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963**

(Geographic data for this industry will not be published separately)



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Production for all purposes	Total shipments, including interplant transfers		Production for all purposes	Total shipments, including interplant transfers	
			Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
2823- --	CELLULOSIC MANMADE FIBERS, TOTAL.....	(X)	(X)	681.0	(X)	(X)	648.9
28231 --	Acetate yarn, total.....	487.2	491.9	339.6	<sup>1</sup> 314.4	<sup>1</sup> 316.2	250.3
	Packaged yarn:						
28231 11	45 denier (47 denier and finer).....	}	148.1	147.2	118.4	2.3	1.9
28231 13	55 denier (48 to 62 denier).....					72.9	57.5
28231 15	75 denier (63 to 87 denier).....		76.2	77.2	63.4	71.6	58.6
28231 17	100 denier (88 to 112 denier).....		28.3	28.8	21.0	29.5	22.6
28231 21	120 denier (113 to 137 denier).....		1.2	1.3	0.9	3.7	2.1
28231 23	150 denier (138 to 162 denier).....	}	99.0	100.0	61.8	92.0	55.0
28231 25	200 denier (163 to 237 denier).....		41.0	41.2	29.2	10.0	6.5
28231 27	300 and more (238 and more).....						
28231 41	Staple.....	}	93.4	96.2	44.9	<sup>1</sup> 32.4	<sup>1</sup> 32.7
28231 59	Tow, except cigarette filters.....						246.1
28231 98	Other acetate products, n.e.c., including salable waste.....						
28231 00	Acetate yarn, n.s.k.....						
28232 --	Rayon yarn, viscose and cuprammonium processes, total.....	(NA)	(NA)	340.6	1,003.2	1,013.2	398.6
	Packaged yarn including rayon horsehair, straw, etc., monofilaments by denier:						
28232 11	45 denier (47 denier and finer).....	}	9.5	9.5	9.3	9.4	9.7
28232 13	55 denier (48 to 62 denier).....						
28232 15	75 denier (63 to 87 denier).....						
28232 17	100 denier (88 to 112 denier).....		17.2	16.5	14.8	20.9	17.6
28232 21	125 denier (113 to 137 denier).....		3.0	2.8	2.3		
28232 23	150 denier (138 to 162 denier).....	}	62.4	64.7	48.0	66.3	47.6
28232 25	200 denier (163 to 237 denier).....		0.6	0.7	0.6	0.4	0.4
28232 27	250 and 300 denier (238 to 374 denier).....		27.5	27.5	20.1	29.3	21.4
28232 31	450 denier (375 to 524 denier).....		10.9	11.1	7.2	14.7	10.9
28232 33	600 denier (525 to 749 denier).....		5.4	6.0	3.9	6.5	4.6
28232 35	900 denier (750 to 999 denier).....	}	4.5	4.0	2.8	5.6	3.9
28232 37	1,100 denier (1,000 to 1,374 denier).....		12.9	13.3	7.7	32.0	18.3
28232 39	1,650 denier (1,375 and more).....		108.0	119.3	55.9	200.9	95.8
28232 41	Staple.....	}	593.4	618.7	158.6	563.2	158.1
28232 51	Tow.....		9.0	10.9	3.3	14.6	5.7
28232 61	Waste, including staple waste.....						
28232 98	Other rayon products, n.e.c.....		(NA)	(NA)	6.1	39.4	4.7
28232 00	Rayon yarn, viscose and cuprammonium processes, n.s.k.....						
28230 00	Cellulosic manmade fibers, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	0.8	-	-	-
28230 02	Cellulosic manmade fibers, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	(X)	(Z)	-	-	-

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

(Z) Less than 0.1 when rounded.

<sup>1</sup>Weight does not include acetate and triacetate staple, tow, and salable waste.

<sup>2</sup>Includes value of acetate and triacetate staple, tow, and salable waste.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material		Unit of measure	1967		1963	
				Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2823.--CELLULOSIC MANMADE FIBERS						
	Materials, containers, and supplies, total..			(x)	348.9	(x)	295.3
281829	Acetic anhydride (net after recovery).....	100%.....	1,000 short tons	108.9	16.3	115.3	11.9
281238	Sodium hydroxide (caustic soda).....	100% NaOH....	...do.....	299.7	13.3	334.9	17.8
281931	Sulfuric acid, except spent acid.....	100% H <sub>2</sub> SO <sub>4</sub> ...	...do.....	518.6	10.3	548.3	10.6
261101	Woodpulp (excluding wood flour).....	Air dry.....	...do.....	692.2	132.2	707.4	119.5
260091	Paper and paperboard containers.....			(x)	10.3	(x)	7.9
970099	All other materials and components, parts, containers, and supplies consumed.....			(x)	148.8	(x)	127.7
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....			(x)	17.7	-	-

- Represents zero. n.s.k. Not specified by kind.

(X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this included estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2823, these small establishments accounted for approximately .0 percent of payrolls and .0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

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**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

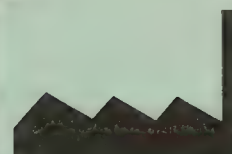
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-28B-4

## INDUSTRY SERIES

### Organic fibers, noncellulosic

SIC Code 2824

**preliminary  
report**

The Synthetic Organic Fibers, Except Cellulosic, Industry includes establishments primarily engaged in manufacturing synthetic organic fibers except cellulosic (including those of regenerated proteins, and of polymers or copolymers of such components as vinyl chloride, vinylidene chloride, linear esters, vinyl alcohols, acrylonitrile, ethylenes, amides, and related polymeric materials) in the form of monofilament, yarn, staple or tow suitable for further manufacturing on spindles, looms, knitting machines or other textile processing equipment. Establishments primarily engaged in manufacturing textile glass fibers are classified in industry 3229.

The classification of establishments for which data are tabulated in this report is based upon

the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Organic Fibers, Noncellulosic, Industry amounted to \$2,027.7 million, an increase of 45 percent compared with 1963. Value added by manufacture at \$1,246.9 million in 1967 was 35 percent more than value added in 1963. Average employment in the industry showed an increase of 37 percent from 1963 to a total of 56.9 thousand employees in 1967.

Of the \$2,027.7 million total value of shipments and other receipts of establishments classified as organic fibers, noncellulosic, \$161.4 million were

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2824.--ORGANIC FIBERS, NONCELLULOSIC														
1967 Census....	38	33	56.9	414.0	40.5	80.5	256.9	1,246.9	764.1	2,027.7	291.0	263.2	92	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	59.1	421.3	40.6	80.7	246.0	1,301.5	733.8	1,991.8	384.7	266.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	51.5	358.5	36.5	73.6	216.4	1,215.4	683.4	1,842.9	363.0	211.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	44.3	304.6	30.7	62.3	180.6	1,043.1	540.0	1,580.6	163.6	130.0	(NA)	(NA)
1963 Census....	25	24	41.4	275.8	28.4	57.2	161.0	922.0	487.8	1,403.2	170.3	124.0	95	97
1962 ASM <sup>1</sup> .....	(NA)	(NA)	31.8	214.4	23.3	46.5	131.4	793.2	418.1	1,192.1	118.4	99.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	29.0	186.4	20.4	40.2	111.8	668.1	367.4	1,039.5	117.5	75.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	23.4	141.8	17.0	33.6	88.6	549.6	321.6	868.3	48.1	69.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	22.2	129.6	16.3	32.2	82.2	557.8	333.7	875.1	24.7	68.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	14	14	18.7	102.7	12.9	26.0	61.9	439.6	243.7	668.4	53.7	48.6	(D)	(D)

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals. (NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued October 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

products primary to other industries; and \$70 million were receipts for miscellaneous activities. The industry shipments of primary products represented 92 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

The total value of organic fibers, noncellulosic, shipped by all producers in 1967 was \$1,962.2 million of which \$1,859.3 million, or 95 percent, were shipped by plants classified in industry

2824, Organic Fibers, Noncellulosic, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 97 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2824.--ORGANIC FIBERS, NONCELLULOSIC												
United States, total.....	38	33	56.9	414.0	40.5	80.5	256.9	1,246.9	764.1	2,027.7	291.0	41.4	922.0
North Carolina.....	8	7	10.2	63.2	7.6	15.4	42.5	199.2	145.6	347.7	54.8	7.7	141.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Production for all purposes (million lbs.)	Total shipments, including interplant transfers		Production for all purposes (million lbs.)	Total shipments, including interplant transfers	
			Quantity (million lbs.)	Value (million dollars)		Quantity (million lbs.)	Value (million dollars)
2824- --	ORGANIC FIBERS, NONCELLULOSIC, TOTAL.....	(X)	(X)	1,962.2	(X)	(X)	1,368.3
28241 --	Polyamide fibers, nylon, except monofilaments.....	1,140.5	1,145.7	1,056.2	739.1	707.5	896.1
28241 15	Filament yarn and textile monofilaments.....	941.0	957.8	972.5	739.1	707.5	896.1
28241 31-45	Staple, tow and salable waste.....	199.5	187.9	83.7			
28242 --	Other noncellulosic synthetic organic fibers.....	1,274.3	1,244.6	905.9	474.2	454.3	472.2
28242 45	Acrylic and modacrylic yarns, staple and tow.....	399.8	389.5	287.2	211.7	213.1	181.6
28242 63	Polypropylene filament yarn and textile monofilaments.....	53.0	53.9	40.6	26.4	19.9	14.7
28242 65	Polypropylene staple and tow.....	47.1	41.9	29.3			
28242 51-55	Polyester filament yarn, staple, tow and fiberfill.....	711.2	695.3	489.4	231.4	220.6	275.9
28242 61	Polyethylene fibers.....	63.2	64.0	59.4			
28242 73	Saran fibers.....						
28242 75	Spandex (extruded textile fiber).....						
28242 78	Vinyon fibers.....						
28242 81-85	Other manmade fibers, filament yarn and textile monofilaments, staple and tow.....						
28242 86-88	Salable waste of noncellulosic fibers except nylon.....						
28240 00	Organic fibers, noncellulosic, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	0.1	(X)	(X)	-
28240 02	Organic fibers, noncellulosic, n.s.k.(For companies with less than 10 employees. See Note.).....	(X)	(X)	-	(X)	(X)	-

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

-Represents zero. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

(See appendix, Explanation of Terms.)

Code	Materials	Basis	Unit of measure	1967		1963	
				Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2824.--ORGANIC FIBERS, NONCELLULOSIC						
	Materials, containers, and supplies, total.....			(X)	716.7	(X)	463.1
281821	Acrylonitrile.....	100%.....	Million pounds...	394.3	49.2	(NA)	(NA)
281872	Caprolactam.....	100%.....	..do.....	282.8	60.4	(NA)	(NA)
282131	Polypropylene resins.....	Dry basis.....	..do.....	85.3	20.1	(NA)	(NA)
281238	Sodium hydroxide (caustic soda).....	100% NaOH.....	1,000 short tons.	(D)	(D)	31.4	1.7
281931	Sulphuric acid, except spent acid.....	100% H <sub>2</sub> SO <sub>4</sub> .....	..do.....	39.1	0.7	47.3	0.9
260091	Paper and paperboard containers.....			(X)	22.1	(X)	9.8
970099	All other materials and components, parts, containers, and supplies.....			(X)	561.9	(X)	450.7
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....			(X)	2.3	(X)	-

-Represents zero. (D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2824, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE  
Bureau of the Census**

**Bureau of the Census**  
Washington, D.C. 20233

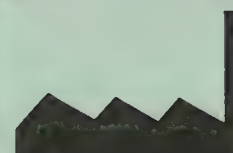
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U.S. DEPARTMENT OF COMMERCE





# 1967 CENSUS OF MANUFACTURES



MC67(P)-28C-1

## INDUSTRY SERIES

**preliminary  
report**

### Biological products

SIC Code 2831

The Biological Products Industry includes establishments primarily engaged in the production of bacterial and virus vaccine, toxoids and analogous products (such as allergenic extracts), serums, plasmas, and other blood derivatives for human or veterinary use.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Biological Products Industry amounted to \$160.0 million, an increase of 40 percent

compared with 1963. Value added by manufacture at \$109.3 million in 1967 was 81 percent more than value added in 1963. Average employment in the industry showed an increase of 28 percent from 1963 to a total of 7.4 thousand employees in 1967.

Of the \$160.0 million total value of shipments and other receipts of establishments classified as biological products, \$15.1 million were products primary to other industries; and \$11.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 90 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2831.--BIOLOGICAL PRODUCTS														
1967 Census....	128	44	7.4	53.8	4.8	9.3	25.1	109.3	56.4	160.0	12.1	46.1	90	62
1966 ASM <sup>1</sup> .....	(NA)	(NA)	5.6	39.6	3.5	7.2	18.4	78.8	36.4	108.4	11.5	35.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	5.2	35.7	3.2	6.4	16.3	64.6	33.7	96.6	6.3	28.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	5.6	35.5	3.4	6.6	16.1	63.2	33.6	97.8	6.6	28.4	(NA)	(NA)
1963 Census....	113	40	5.8	33.8	3.6	7.2	17.0	60.4	38.2	95.7	10.1	29.5	88	45
1962 ASM <sup>1</sup> .....	(NA)	(NA)	5.9	32.5	3.8	7.5	16.5	63.5	42.7	103.2	5.7	27.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	5.7	30.0	3.7	7.1	15.7	65.7	36.8	100.6	5.5	27.0	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	5.4	27.8	3.4	6.8	14.4	59.0	32.9	91.0	5.2	25.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	4.1	19.5	2.8	5.6	10.9	46.6	24.1	68.4	(S)	16.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	116	35	3.7	16.2	2.6	5.0	9.7	38.9	24.9	63.8	4.6	15.0	89	41

(NA) Not available.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 4, respectively.<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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**U.S. DEPARTMENT OF COMMERCE**    **Maurice H. Stans, Secretary**  
**Rocco C. Siciliano, Under Secretary**  
**BUREAU OF THE CENSUS**

The total value of biological products shipped by all producers in 1967 was \$216.0 million of which \$133.8 million, or 62 percent, were shipped by plants classified in industry 2831, Biological Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 45 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2831---BIOLOGICAL PRODUCTS												
United States, total.....	128	44	7.4	53.8	4.8	9.3	25.1	109.3	56.4	160.0	12.1	5.8	60.4
Middle Atlantic:													
New York.....	10	5	0.4	2.5	0.3	0.5	1.1	5.2	2.1	7.3	(D)	(D)	(D)
New Jersey.....	9	3	0.2	0.9	0.1	0.1	0.3	2.0	1.0	3.0	(D)	(D)	(D)
North Central.....	44	18	3.1	23.4	1.8	3.5	10.1	47.1	24.4	71.9	5.4	3.0	32.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of shipments including interplant transfers (million dollars)	
		1967	1963
2831- --	BIOLOGICAL PRODUCTS, TOTAL.....	216.0	<sup>1</sup> 167.3
	Biological products for human use, total.....	162.4	<sup>1</sup> 125.3
28311 11	Blood and blood derivatives for human use.....	35.3	(NA)
28312 11	Vaccines and antigens for human use.....	34.9	(NA)
28313 11	Antitoxins, toxoids, and toxins for immunization, and therapeutic immune serums, for human use..	10.4	(NA)
28314 11	Diagnostic substances and other biologics, including allergenic extracts, poison ivy and poison oak extracts, etc., for human use.....	81.8	(NA)
28315 --	Biological preparations for veterinary use.....	47.0	<sup>1</sup> 40.7
28315 13	Vaccines and viruses.....	34.1	(NA)
28315 23	Bacterins and mixed bacterins.....	5.1	(NA)
28315 33	Serums.....	5.9	(NA)
28315 98	Other biologics, including antitoxins, toxoids, and diagnostics.....	1.9	(NA)
28310 00	Biological products, n.s.k. (For companies with 10 or more employees. See Note.).....	4.5	1.3
28310 02	Biological products, n.s.k. (For companies with less than 10 employees. See Note.).....	2.1	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind.

<sup>1</sup>A revision in the product structure of this industry was introduced in the 1967 Standard Industrial Classification so that the product statistics for the industry prior to 1967 are not directly comparable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Delivered cost (million dollars)	
		1967	1963
	INDUSTRY 2831.--BIOLOGICAL PRODUCTS		
	Materials, containers, and supplies, total.....	46.7	31.8
265011	Paperboard boxes containers.....	2.5	1.9
322102	Glass.....	3.0	3.2
970099	All other materials and components, parts, containers, and supplies consumed.....	34.4	24.3
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	6.8	2.4

n.s.k. Not specified by kind.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2831, these small establishments accounted for approximately 1.0 percent of payrolls and 1.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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# 1967 CENSUS OF MANUFACTURES

MC67(P)-28C-2

## INDUSTRY SERIES

report

### Medicinals and botanicals

SIC Code 2833

The Medicinal Chemicals and Botanical Products Industry includes establishments primarily engaged in (1) manufacturing bulk organic and inorganic chemicals and their derivatives; and (2) processing (grading, grinding, and milling) bulk botanical drugs and herbs. Establishments primarily engaged in manufacturing agar-agar and similar products of natural origin, endocrine products, manufacturing or isolating basic vitamins, and isolating active medicinal principals such as alkaloids from botanical drugs and herbs are also included in this industry.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Medicinals and Botanicals Industry amounted to \$387.4 million, an increase of 27 percent compared with 1963. Value added by manufacture at \$217.5 million in 1967 was 44 percent more than value added in 1963. Average employment in the industry showed a decrease of 20 percent from 1963 to a total of 6.5 thousand employees in 1967.

Of the \$387.4 million total value of shipments and other receipts of establishments classified as medicinals and botanicals, \$68.9 million were products primary to other industries; and \$26.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 81 percent of the total manufactured

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)							
INDUSTRY 2833.--MEDICINAL CHEMICALS AND BOTANICAL PRODUCTS														
1967 Census....	125	44	6.5	53.4	4.2	8.7	29.5	217.5	175.2	387.4	23.2	67.4	81	53
1966 ASM <sup>1</sup> .....	(NA)	(NA)	5.2	41.8	3.3	7.1	22.2	149.1	142.0	285.1	17.2	53.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	5.2	40.0	3.2	6.9	21.0	126.9	128.7	255.9	9.2	47.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	5.8	42.8	3.6	7.7	23.0	113.9	136.4	252.5	8.8	51.5	(NA)	(NA)
1963 Census....	138	42	8.1	59.3	5.3	11.1	33.6	151.3	155.5	305.8	14.0	72.4	71	47
1962 ASM <sup>1</sup> .....	(NA)	(NA)	9.0	63.0	5.7	12.1	34.2	158.9	151.8	295.6	17.9	68.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	8.6	56.0	5.6	11.5	30.9	156.4	137.2	284.2	15.1	61.1	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	11.7	78.2	7.3	15.3	40.4	210.2	153.5	351.1	25.4	75.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	12.0	78.9	7.7	16.3	42.7	212.4	165.9	369.0	38.0	73.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	129	50	10.2	62.9	6.6	13.8	35.5	175.8	148.9	322.3	34.8	60.0	72	55

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

BUREAU OF THE CENSUS George Hay Brown, Director

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 71 percent in 1963.

The total value of medicinals and botanicals shipped by all producers in 1967 was \$549.0 million of which \$292.5 million, or 53 percent, were shipped by plants classified in industry 2833, Medicinals and Botanicals, while the remainder was shipped by plants classified in other in-

dustries. This percent, called the coverage ratio, was 47 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expend- itures, new  (million dollars)	All em- ployees  (1,000)	Value added by manufac- ture  (million dollars)
	Total	With 20 employ- ees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2833.--MEDICINAL CHEMICALS AND BOTANICAL PRODUCTS													
United States, total.....	125	44	6.5	53.4	4.2	8.7	29.5	217.5	175.2	387.4	23.2	8.1	151.3
Northeast.....	51	23	4.1	34.8	2.4	5.1	17.8	100.7	85.1	182.7	15.6	5.9	93.4
New Jersey.....	21	12	2.4	19.6	1.4	3.0	10.6	62.8	47.0	107.8	(D)	2.0	36.3
North Central.....	34	11	0.8	5.4	0.5	1.1	3.1	19.5	40.0	58.9	1.4	1.4	26.7

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Value of shipments including interplant transfers (million dollars)	
		1967	1963
2833--	MEDICINALS AND BOTANICALS, TOTAL.....	549.0	434.0
28331--	Synthetic organic medicinal chemicals in bulk, total <sup>1</sup> .....	460.8	367.8
28331 10	Antibiotics, in bulk.....	153.6	127.7
28331 20	Other synthetic organic medicinal chemicals, in bulk, except antibiotics.....	307.2	240.2
28332--	Other medicinal chemicals and botanical products, in bulk, n.e.c. total.....	79.0	64.7
28332 13	Botanical drugs and derivatives, in bulk (uncompounded).....	21.0	21.3
28332 21	Naturally occurring vitamins (from yeast, plants, fish liver, etc.) in bulk.....	9.9	12.3
28332 41	Drugs of animal origin, in bulk, including dried glands and other animal organs and tissue and extractions thereof.....	9.2	9.1
28332 61	Other organic medicinal chemicals, in bulk.....	32.3	14.5
28332 81	Inorganic medicinal chemicals, in bulk.....	5.5	5.8
28332 00	Other medicinal chemicals and botanical products, n.e.c., (bulk), n.s.k.....	1.1	1.7
28330 00	Medicinal chemicals and botanical products, n.s.k. (For companies with 10 or more employees. See Note.).....	7.7	1.5
28330 02	Medicinal chemicals and botanical products, n.s.k. (For companies with less than 10 employees. See Note.).....	1.5	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

<sup>1</sup>Data on quantities produced and values shipped for many of the synthetic organic medicinal chemicals included in this grouping are shown in the United States Tariff Commission's annual report, "Synthetic Organic Chemicals, United States Production and Sales."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2833, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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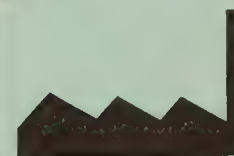
**U. S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**

**BUREAU OF THE CENSUS**  
**WASHINGTON, D.C. 20233**

**OFFICIAL BUSINESS**

**U.S. DEPARTMENT OF COMMERCE**



1967 CENSUS OF  
MANUFACTURES

## INDUSTRY SERIES

## Pharmaceutical preparations

SIC Code 2834

preliminary  
report

The Pharmaceutical Preparations Industry includes establishments primarily engaged in manufacturing, fabricating, or processing drugs in pharmaceutical preparations for human or veterinary use. The greater part of the products of these establishments are finished in the form intended for final consumption such as ampoules, tablets, capsules, ointments, medicinal powders, solutions, and suspensions. Products of this industry consist of two important lines, namely: (1) pharmaceutical preparations promoted primarily to the dental, medical, or veterinary professions; and (2) pharmaceutical preparations promoted primarily to the public.

The classification of establishments for which data are tabulated in this report is based upon

the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Pharmaceutical Preparations Industry amounted to \$4,698.8 million, an increase of 42 percent compared with 1963. Value added by manufacture at \$3,707.8 million in 1967 was 43 percent more than value added in 1963. Average employment in the industry showed an increase of 22 percent from 1963 to a total of 103.9 thousand employees in 1967.

Of the \$4,698.8 million total value of shipments and other receipts of establishments classified as pharmaceutical preparations, \$604.5 million were

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expend- itures, new (million dollars)	End-of-year inventories (million dollars)	Special- ization ratio (per- cent)	Coverage ratio (per- cent)
	Total	With 20 employ- ees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2834.--PHARMACEUTICAL PREPARATIONS														
1967 Census....	873	317	103.9	833.3	56.5	109.8	348.5	3,707.8	1,025.9	4,698.8	169.1	622.2	87	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	98.3	761.1	53.6	107.9	327.9	3,446.9	1,018.0	4,432.4	133.8	582.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	94.6	701.6	51.4	102.1	299.4	3,172.8	907.4	4,049.7	122.6	521.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	90.2	639.8	49.4	99.2	273.8	2,766.2	815.2	3,571.1	102.7	469.0	(NA)	(NA)
1963 Census....	1,011	319	85.1	580.6	45.9	91.7	246.0	2,595.7	736.5	3,314.3	89.3	428.3	87	94
1962 ASM <sup>1</sup> .....	(NA)	(NA)	91.3	588.7	48.8	94.2	240.7	2,413.5	734.2	3,142.2	71.5	403.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	88.0	549.1	46.5	91.1	225.2	2,223.7	698.6	2,926.6	86.4	383.2	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	86.7	517.6	45.6	88.9	212.9	2,085.2	675.3	2,772.1	85.1	357.2	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	83.7	495.9	45.6	89.4	209.1	2,015.5	685.2	2,692.2	82.8	274.7	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,114	318	82.0	466.6	45.7	91.4	205.5	1,881.5	700.6	2,591.8	72.4	365.8	87	94

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

products primary to other industries; and \$100.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 87 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 87 percent in 1963.

The total value of pharmaceutical preparations shipped by all producers in 1967 was \$4,149.2 million of which \$3,993.4 million, or 96 percent, were shipped by plants classified in industry 2834,

Pharmaceutical Preparations, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 94 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2834, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

MA-28G, Pharmaceutical Preparations, Except Biologicals.



## 1967 CENSUS OF MANUFACTURES

3

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2834.--PHARMACEUTICAL PREPARATIONS												
United States, total.....	873	317	103.9	833.3	56.5	109.8	348.5	3,707.8	1,025.9	4,698.8	169.1	85.1	2,595.7
New England.....	49	14	3.8	22.6	2.5	5.0	15.9	74.3	41.7	117.2	1.0	(D)	(D)
Middle Atlantic.....	275	115	49.4	412.9	27.0	53.8	170.3	2,117.2	531.7	2,636.3	(D)	(D)	(D)
New Jersey.....	72	37	18.8	163.2	9.2	19.5	61.2	824.7	200.5	1,020.2	(D)	14.4	502.8
East North Central....	182	69	32.6	276.9	17.1	31.3	116.5	1,025.5	271.3	1,283.5	56.9	28.0	797.0
Indiana.....	23	7	12.1	113.3	6.2	10.6	45.0	407.4	85.9	490.2	(D)	10.5	299.4
Illinois.....	71	28	9.9	76.5	4.6	8.9	27.2	259.7	76.2	332.5	(D)	8.0	221.4
West North Central....	80	31	4.3	30.1	2.4	4.6	12.5	134.1	49.2	182.5	6.8	4.1	84.5
Missouri.....	42	20	2.6	17.3	1.5	3.1	8.3	91.8	31.4	123.0	2.7	2.7	58.7
Nebraska.....	6	5	0.8	6.0	0.4	0.8	2.1	27.5	7.8	34.6	(D)	0.5	10.4
South.....	170	51	9.8	62.8	5.3	10.7	21.8	275.5	96.2	365.3	14.5	7.6	176.5
Georgia.....	11	4	0.5	2.6	0.3	0.6	1.2	7.5	4.9	12.1	0.3	0.3	5.1
West South Central..	46	11	1.2	8.3	0.5	0.9	1.8	19.6	8.2	27.9	0.7	1.0	13.2
Texas.....	31	11	1.1	8.0	0.4	0.8	1.7	18.4	7.4	26.0	0.7	0.9	12.3
West.....	117	37	4.1	28.1	2.3	4.4	11.4	81.1	35.8	114.2	(D)	2.9	38.9
California.....	90	32	3.7	26.1	2.0	4.0	10.4	75.1	31.1	103.8	(D)	2.5	34.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967				1963			
		Total	Domestic shipments		Export shipments including those to foreign subsidiaries	Total	Domestic shipments		Export shipments including those to foreign subsidiaries
		(million dollars)	Ethical (million dollars)	Pro-prietary (million dollars)	(million dollars)	(million dollars)	Ethical (million dollars)	Pro-prietary (million dollars)	(million dollars)
2834- --	PHARMACEUTICAL PREPARATIONS:								
	As reported in the census of manufactures <sup>1</sup> .....	4,149.2	(NA)	(NA)	(NA)	3,000.2	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> ...	4,143.0	2,929.7	1,091.6	121.8	2,993.1	2,054.9	836.2	102.0
28341 --	Pharmaceutical preparations affecting neoplasms, endocrine system and metabolic diseases, for human use:								
	As reported in the census of manufactures <sup>1</sup> .....	420.7	(NA)	(NA)	(NA)	259.1	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	439.6	424.8	(X)	14.8	274.2	261.7	(X)	12.6
	Hormones and synthetic substitutes, total.....	413.5	(X)	(X)	(X)	264.6	(*)	(*)	(*)
	Corticoids:								
28341 11	Systemic.....	74.7	69.7	(X)	5.0	62.9	58.0	(X)	4.8
28341 15	Local and topical, including anti-infective combinations.....	67.0	65.1	(X)	1.9	43.2	39.8	(X)	3.4
28341 17	Androgens.....	5.5	(D)	(X)	(D)	3.7	3.7	(X)	0.1
28341 19	Estrogens.....	41.2	40.2	(X)	1.0	19.2	18.4	(X)	7.8
28341 21	Insulin and antidiabetic agents.....	83.0	82.0	(X)	1.1	(*)	(*)	(X)	(*)
28341 25	ACTH.....	4.3	(D)	(X)	(D)	5.5	(D)	(X)	(D)
	Progestogens (excluding premenstrual tension preps. See Code 2834585):								
28341 27	Oral contraceptive preparations.....	103.5	102.7	(X)	0.8	37.7	37.2	(X)	0.5
28341 29	Other.....	6.0	5.8	(X)	0.1				
28341 31	Sex hormone combinations (except progestogen combinations).....	6.8	6.7	(X)	0.1	4.6	4.6	(X)	0.1
28341 35	Thyroid and antithyroid preparations, including iodides.....	14.0	13.9	(X)	0.1	8.8	8.7	(X)	0.1
28341 37	Anabolic agents.....	5.1	5.0	(X)	0.1	5.6	(D)	(X)	(D)
28341 39	Other hormone preparations.....	2.3	2.1	(X)	0.2	<sup>2</sup> 67.9	<sup>2</sup> 66.8	(X)	<sup>2</sup> 1.1
	Antineoplastic agents:								
28341 43	Radioactive isotopes for internal use.....	13.3	11.9	(X)	1.4	2.3	(D)	(X)	(D)
28341 45	Specific antineoplastic agents.....					3.2	2.6	(X)	5.6
28341 98	Other pharmaceutical preparations affecting neoplasms, the endocrine system and metabolic diseases.....	12.8	(D)	(X)	(D)	9.6	8.8	(X)	828
28341 00	Pharmaceutical preparations affecting neoplasms, endocrine system, and metabolic diseases, for human use, n.s.k.....								
28342 --	Pharmaceutical preparations acting on the central nervous system and the sense organs, for human use:								
	As reported in the census of manufactures <sup>1</sup> .....	1,138.1	(NA)	(NA)	(NA)	755.8	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	1,130.1	793.3	324.0	12.9	751.6	484.9	254.0	12.8
28342 11	Parasympathomimetic agents (except miotics and mydriatics).....	( <sup>3</sup> )	( <sup>3</sup> )	(X)	(X)	( <sup>3</sup> )	( <sup>3</sup> )	(X)	( <sup>3</sup> )
28342 13	Skeletal muscle relaxants.....	21.8	21.4	(X)	0.5	20.1	19.5	(X)	0.5
	Internal analgesics and antipyretics:								
28342 21	Narcotic.....	40.3	40.2	(X)	0.1	32.1	32.0	(X)	0.1
	Nonnarcotic, total.....	448.4	(*)	(*)	(*)	302.7	(*)	(*)	(*)
28342 23	Salicylates, including acetylsalicylic acid.....	86.2	4.0	81.6	0.6	71.1	5.3	66.0	0.3
28342 25	Aspirin combinations.....	170.5	27.6	141.8	1.2	133.5	13.9	118.3	1.2
28342 27	Anti-arthritis (nonhormonal).....	191.7	(D)	(D)	(D)	8.5	7.8	7.2	(Z)
28342 29	Other internal analgesics and antipyretics, including effervescent types, and suppositories.....					89.7	(D)	(D)	(D)
28342 41	Anticonvulsants, except phenobarbital.....	15.1	(D)	(X)	(D)	11.0	10.8	(X)	0.2
	Psychotherapeutic agents:								
28342 51	Antidepressants.....	45.0	44.8	(X)	0.3	19.0	18.3	(X)	0.6
	Tranquilizers:								
28342 55	Phenothiazine derivatives.....	116.0	115.1	(X)	0.9	86.7	85.5	(X)	1.2
28342 57	Other tranquilizers.....	205.5	204.0	(X)	1.4	110.4	108.7	(X)	1.7
28342 59	Other psychotherapeutic agents.....	0.7	(D)	(X)	(D)	0.9	(D)	(X)	(D)

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967				1963			
		Total	Domestic shipments		Export shipments including those to foreign subsidiaries	Total	Domestic shipments		Export shipments including those to foreign subsidiaries
			Ethical	Pro-prietary			Ethical	Pro-prietary	
		(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)
	PHARMACEUTICAL PREPARATIONS--Continued								
	Pharmaceutical preparations acting on central nervous system and the sense organs, for human use--Continued								
	As reported in Current Industrial Reports MA-28G--Con.								
	Central nervous system (CNS) stimulants (respiratory and cerebral stimulants, including sympathomimetic agents employed mainly as CNS stimulants) (excluding nondrug dietaries for weight control):								
28342 61	Amphetamines.....	56.4	55.8	(X)	0.6	48.6	48.1	(X)	0.5
28342 63	Anorexiant, except amphetamines.....	23.6	22.4	(D)	(D)	10.5	9.5	(D)	(D)
28342 69	Other CNS stimulants.....	0.4	0.4	0.0	(X)	-	-	-	-
	Sedatives and hypnotics:								
	Ethical:								
28342 71	Barbiturates.....	25.4	25.1	(X)	0.3	25.6	24.9	(X)	0.5
28342 75	Nonbarbiturates.....	17.3	17.1	(X)	0.2	12.6	12.6	(X)	0.1
	Proprietary preparations:								
28342 77	Sleep inducers.....	14.9	(X)	(D)	(D)	9.4	(X)	(D)	(D)
28342 79	Calming agents.....	3.2	(X)	(D)	(D)	2.3	(X)	(D)	(D)
	Anesthetics (except urinary tract anesthetics and skin preparations used as antipruritics):								
28342 81	Local and topical.....	15.9	15.2	0.4	0.4	14.8	14.0	0.3	0.4
28342 85	General.....	31.5	(D)	(D)	0.7	17.5	16.4	(D)	(D)
	Eye and ear preparations (excluding anti-infectives, corticoids, and antibacterials and antiseptics):								
28342 91	Mydriatics and miotics.....	9.5	8.7	0.1	0.8	6.0	5.6	0.1	0.3
28342 95	Other eye and ear preparations, including contact lens solutions.....	17.7	5.3	11.8	0.6	8.0	2.6	5.0	0.3
28342 98	Other pharmaceutical preparations acting on the central nervous system and the sense organs.....	321.5	317.0	33.9	30.6	313.4	310.9	32.5	30.2
28342 00	Pharmaceutical preparations acting on the central nervous system and the sense organs, for human use, n.s.k.....								
28343 --	Pharmaceutical preparations acting on the cardiovascular system, for human use:								
	As reported in the census of manufactures <sup>1</sup> .....	207.2	(NA)	(NA)	(NA)	143.6	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	204.0	201.3	(X)	2.7	148.7	144.8	(X)	4.0
28343 11	Anticoagulants.....	12.1	12.0	(X)	0.0	8.7	8.6	(X)	0.1
28343 21	Hemostatics.....	6.5	6.2	(X)	0.3	6.5	6.3	(X)	0.2
28343 31	Digitalis preparations.....	6.7	6.7	(X)	0.0	5.6	5.5	(X)	0.1
	Hypotensives, total.....	103.5	(*)	(X)	(*)	77.1	(*)	(X)	(*)
28343 41	Rauwolfia-diuretic combinations.....	51.2	51.1	(X)	0.1	37.6	(D)	(X)	(D)
28343 45	Rauwolfia.....	12.7	12.7	(X)	0.0	16.6	16.5	(X)	0.1
28343 49	Other hypotensives.....	39.6	(D)	(X)	(D)	22.9	(D)	(X)	(D)
	Vasodilators:								
28343 51	Coronary.....	35.0	34.1	(X)	0.9	24.3	23.4	(X)	0.9
28343 55	Peripheral.....	19.3	19.1	(X)	0.2	10.8	10.4	(X)	0.4
28343 98	Other pharmaceutical preparations acting on the cardiovascular system, including vasopressors, antiarrhythmics, and antiheparin agents.....	20.0	19.4	(X)	0.6	15.8	(D)	(X)	(D)
28343 00	Pharmaceutical preparations acting on the cardiovascular system, for human use, n.s.k.....	0.9	(D)	(X)	(D)				
28344 --	Pharmaceutical preparations acting on the respiratory system, for human use:								
	As reported in the census of manufactures <sup>1</sup> .....	357.5	(NA)	(NA)	(NA)	283.1	(D)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	366.6	203.5	155.6	7.5	298.4	152.4	140.6	5.4
28344 11	Antihistamines, except cold preparations and anti-emetics.....	32.7	28.2	(D)	(D)	33.5	28.2	(D)	(D)
28344 15	Bronchial dilators, including antiasthmatics.....	41.7	38.3	2.8	0.6	24.7	24.0	(X)	0.7
	Cough preparations and expectorants (containing antitussive or other ingredient intended primarily to treat cough only):								
	Ethical preparations:								
28344 21	Narcotic.....	27.4	27.1	(X)	0.3	22.6	22.4	(X)	0.2
28344 25	Nonnarcotic.....	15.9	15.7	(X)	0.2	13.8	13.7	(X)	0.2

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967				1963			
		Total	Domestic shipments		Export shipments including those to foreign subsidiaries	Total	Domestic shipments		Export shipments including those to foreign subsidiaries
			Ethical	Pro- prietary			Ethical	Pro- prietary	
		(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)
PHARMACEUTICAL PREPARATIONS--Continued									
Pharmaceutical preparations acting on the respiratory system, for human use--Continued									
As reported in Current Industrial Reports MA28G <sup>1</sup> --Con.									
Cold preparations (containing combinations of the following ingredients, (but no antitussive) nasal decongestant, antihistamine, analgesic, bioflavanoid or antibiotic):									
28344 31	Ethical preparations, total.....	78.9	(*)	(X)	(*)	52.1	(*)	(X)	(*)
28344 35	Nasal decongestants.....	52.5	52.0	(X)	0.5	32.5	32.3	(X)	0.3
28344 39	Antihistamine cold preparations.....	17.8	(D)	(X)	(D)	12.8	(D)	(X)	(D)
28344 39	Other ethical cold preparations.....	8.6	(D)	(X)	(D)	6.8	6.7	(X)	0.2
28344 41	Cough and cold combinations (ethical).....	7.3	7.2	(X)	0.1	4.8	(D)	(X)	(D)
	Cough and cold preparations (proprietary), total.....	150.4	(X)	(*)	(*)	138.1	(*)	(X)	(*)
Decongestants (including corticoid decongestants):									
28344 51	Nasal sprays.....	18.7	(X)	18.6	0.1	11.6	(X)	11.5	0.1
28344 55	Nose drops.....	4.9	(X)	4.7	0.1	5.0	(X)	4.9	0.1
28344 59	Other decongestants.....	6.4	(X)	6.1	0.3	8.2	(X)	(D)	(D)
28344 61	Cough syrups.....	44.5	(X)	43.7	0.8	42.2	(X)	41.7	0.5
28344 63	Capsules and tablets.....	37.2	(X)	36.9	0.2	36.8	(X)	36.6	0.2
28344 65	Lozenges.....	14.8	(X)	(D)	(D)	12.2	(X)	12.0	0.2
28344 67	Topical preparations.....	0.9	(X)	(D)	(D)	0.7	(X)	(D)	(D)
28344 71	Cough drops <sup>4</sup> .....	23.1	(X)	(D)	(D)	3.2	(X)	(D)	(D)
28344 79	Other proprietary cough and cold preparations.....					18.2	(X)	(D)	(D)
28344 98	Other pharmaceutical preparations acting on the respiratory system.....	10.5	9.1	1.1	0.3	9.2	8.4	0.8	0.1
28344 00	Pharmaceutical preparations acting on the respiratory system, for human use, n.s.k.....	1.9	(D)	(D)	(D)				
28345 --	Pharmaceutical preparations, acting on the digestive or the genito-urinary systems, for human use:								
	As reported in the census of manufactures <sup>1</sup> .....	553.3	(NA)	(NA)	(NA)	402.8	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	552.4	392.4	145.7	14.3	410.9	283.4	118.0	9.5
Digestive system preparations:									
28345 11	Enzymes.....	14.2	12.7	0.1	1.3	10.8	10.2	0.2	0.4
28345 15	Antacids, including acid neutralizing products with coating functions, but excluding effervescent salicylate products classified as analgesics.....	137.3	68.9	64.5	3.9	101.1	50.8	48.8	1.5
28345 19	Antidiarrheals.....	41.3	16.5	(D)	(D)	27.6	(D)	(D)	0.7
Laxatives, total.....									
28345 21	Irritants.....	79.0	(*)	(*)	(*)	64.7	(*)	(*)	(*)
28345 23	Bulk producing.....	29.8	9.1	20.1	0.6	27.8	7.5	19.9	0.5
28345 25	Fecal softeners.....	21.5	(D)	(D)	0.2	12.5	8.8	3.5	0.2
28345 27	Emollients.....	10.0	8.2	(D)	(D)	8.1	5.0	3.0	0.2
28345 28	Saline.....	3.9	(D)	3.4	(D)	3.0	(D)	2.3	(D)
28345 29	Enema specialties.....	8.6	(D)	7.8	(D)	9.0	(D)	8.1	(D)
		5.2	(D)	(D)	0.0	4.3	(D)	(D)	(D)
28345 31	Digestants.....	1.2	1.1	(D)	(D)	1.3	1.1	0.2	(Z)
28345 33	Bile therapy preparations, including bile products, choleretics and cholagogues.....	4.2	4.0	0.1	0.1	5.3	5.0	0.1	0.1
28345 35	Antinauseants-motion sickness remedies (anti-emetics), including antihistaminic anti-emetic preparations.....	24.6	24.3	0.1	0.2	18.1	17.4	(D)	(D)
28345 37	Lipotropics and cholesterol reducers.....	6.0	5.7	(D)	(D)	4.9	4.6	0.1	0.2
Antispasmodics and anticholinergics, total.....									
28345 41	Synthetics.....	73.5	(*)	(*)	(*)	55.5	(*)	(*)	(*)
28345 43	Ataractic combinations.....	28.8	26.4	(X)	2.3	20.3	19.1	(X)	1.2
28345 45	Belladonna and derivatives.....	22.4	22.3	(X)	0.0	16.8	16.6	(X)	0.1
28345 49	Other antispasmodics and anticholinergics.....	15.0	14.8	(D)	(D)	13.3	13.0	(Z)	0.2
		7.4	7.3	0.0	0.0	5.2	5.0	(D)	(D)
28345 59	Other digestive system preparations, including emetics.....	3.4	3.3	(D)	(D)	3.2	3.0	0.2	(Z)

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967				1963			
		Total	Domestic shipments		Export shipments including those to foreign subsidiaries	Total	Domestic shipments		Export shipments including those to foreign subsidiaries
			Ethical	Pro-prietary			Ethical	Pro-prietary	
		(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)
PHARMACEUTICAL PREPARATIONS--Continued									
Pharmaceutical preparations, acting on the digestive or the genito-urinary systems, for human use--Continued									
As reported in Current Industrial Reports MA-28G <sup>1</sup> --Con.									
Genito-urinary preparations:									
28345 61	Urinary antibacterials and antiseptics.....	28.7	28.2	(D)	(D)	20.9	20.3	(Z)	0.5
Diuretics (Excludes aminophylline, xanthine and rauwolfia-diuretic combinations. See cardiovascular preparations):									
28345 71	Thiazides and related agents.....	57.0	56.9	(D)	(D)	48.0	47.1	(D)	(D)
28345 73	Other diuretics.....	37.7	34.8	(D)	(D)	10.2	7.6	1.4	1.1
28345 81	Oxytocics.....	2.9	2.7	(X)	0.2	3.5	3.2	(X)	0.2
28345 83	Contraceptive agents, except oral contraceptives (aerosols, gels, and creams).....	11.3	(D)	(D)	0.5	11.7	(D)	(D)	0.3
28345 85	Premenstrual tension preparations.....	4.6	(D)	2.9	(D)	3.8	1.5	(D)	(D)
28345 87	Vaginal cleaners.....	12.2	(D)	7.8	(D)	8.4	(D)	5.6	(D)
28345 98	Other pharmaceutical preparations acting on the genito-urinary system, including urinary tract anesthetics.....	12.0	11.1	0.3	0.6	9.5	9.2	0.2	0.1
28345 00	Pharmaceutical preparations acting on the digestive or the genito-urinary systems, for human use, n.s.k.....	1.3	0.5	(D)	(D)	2.5	(D)	(D)	(D)
28346 --	Pharmaceutical preparations acting on the skin for human use:								
	As reported in the census of manufactures <sup>1</sup> .....	229.3	(NA)	(NA)	(NA)	160.3	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	236.9	84.5	148.5	3.9	171.9	64.0	105.7	2.2
Dermatological preparations, total.....									
28346 11	Emollients and protectives, including burn remedies and ointment bases.....	145.0	(*)	(*)	(*)	94.1	(*)	(*)	(*)
28345 13	Antipruritics and local anesthetic skin preparations.....	48.0	8.7	38.9	0.5	31.5	5.2	26.0	0.3
28346 15	Coal tar, sulfur, and resorcinol preparations.....	22.3	12.5	9.1	0.7	17.5	11.0	6.2	0.3
28346 17	Anti-acne and antiseborrheic preparations.....	6.1	(D)	4.4	(D)	5.2	(D)	(D)	(Z)
28345 19	Other dermatological preparations.....	24.2	9.0	14.6	0.5	9.5	5.6	3.7	0.2
28346 21	Hemorrhoidal preparations.....	44.5	34.4	9.3	0.7	30.4	22.3	7.7	0.4
External analgesics and counterirritants, total.....									
28346 31	Ointments, jellies, pastes, creams, cerates, and salves.....	27.6	(D)	19.6	(D)	18.9	6.6	12.2	0.2
28346 35	Liquid (excluding rubbing alcohol but including liniments).....	49.1	(*)	(*)	(*)	44.6	(*)	(*)	(*)
28346 37	Rubbing alcohol.....	21.2	2.5	18.5	0.1	23.0	2.2	20.4	0.3
28346 39	Other external analgesics.....	14.2	1.1	13.0	0.1	11.2	0.8	10.2	0.2
28346 98	Other pharmaceutical preparations acting on the skin..	9.9	(D)	(D)	0.0	7.4	1.6	5.8	(Z)
28346 00	Pharmaceutical preparations acting on the skin, for human use, n.s.k.....	3.8	(D)	2.9	(D)	3.1	(D)	(D)	(D)
28347 --	Vitamin, nutriment and hematinic preparations for human uses:								
	As reported in the census of manufactures <sup>1</sup> .....	379.9	(NA)	(NA)	(NA)	340.8	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	372.6	246.6	114.2	11.8	328.5	206.0	109.9	12.6
Vitamins, total.....									
28347 11	Multivitamins, plain and with minerals, except B complex vitamins and fish liver oils.....	204.1	(*)	(*)	(*)	202.8	(*)	(*)	(*)
28347 13	Pediatric vitamin preparations (drops, suspensions and chewable tablets).....	106.7	48.0	55.6	3.1	107.3	42.4	61.6	3.0
28347 14	Prenatal vitamin preparations.....	36.2	21.6	13.4	1.1	43.0	27.7	14.1	1.2
28347 15	B complex preparations.....	10.8	9.8	0.5	0.4	13.9	12.2	0.9	0.8
28347 17	Fluoride preparations.....	28.0	24.9	2.5	16.6	22.1	17.9	2.9	1.3
28347 19	All other vitamin preparations.....	22.5	13.3	8.1	1.1	16.6	9.2	6.6	0.8
28347 21	Fish liver oils (cod, etc.).....	3.2	(D)	1.6	(D)	5.8	1.3	4.2	0.4
28347 31	Nutrients, excluding therapeutic dietary foods and infant formulas.....	9.2	7.4	(D)	(D)	5.4	4.3	0.9	0.3
28347 41	Tonics and alternatives.....	4.3	1.0	3.1	0.1	5.3	2.3	(D)	(D)

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967				1963			
		Total	Domestic shipments		Export shipments including those to foreign subsidiaries	Total	Domestic shipments		Export shipments including those to foreign subsidiaries
			Ethical	Pro-prietary			Ethical	Pro-prietary	
		(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)
PHARMACEUTICAL PREPARATIONS--Continued									
Vitamin, nutrient and hematinic preparations for human use--Continued									
As reported in Current Industrial Reports MA-28G <sup>1</sup> --Con.									
	Hematinics, total.....	58.5	(*)	(*)	(*)	55.2	(*)	(*)	(*)
	With B <sub>12</sub> :								
28347 51	Oral.....	17.4	15.9	0.8	0.8	18.8	16.7	0.5	1.7
28347 53	Parenteral.....	6.7	6.4	(X)	0.3	8.7	8.1	(X)	0.5
	Other hematinics:								
28347 55	Oral.....	31.3	(D)	(D)	0.3	24.9	(D)	(D)	0.5
28347 57	Parenteral.....	3.0	2.7	(X)	0.3	2.8	2.4	(X)	0.4
28347 61	Hospital solutions (including dextran, etc., but excluding biologicals such as blood plasma).....	73.1	72.0	(X)	1.1	42.5	(D)	(X)	(D)
28347 98	Other vitamin, nutrient and hematinic preparations....	18.0	9.1	(D)	(D)	8.8	6.6	1.8	0.5
28347 00	Vitamin, nutrient and hematinic preparations for human use, n.s.k.....	2.2	1.3	(D)	(D)	2.8	(D)	(D)	-
28348 --	Pharmaceutical preparations affecting parasitic and infective diseases, for human use:								
	As reported in census of manufactures <sup>1</sup> .....	674.1	(NA)	(NA)	(NA)	520.1	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	698.8	526.0	121.8	51.0	496.9	398.2	58.3	40.4
	Anti-infective agents (Excludes corticoid-anti-infective combinations. See code 2834115):								
28348 11	Amebicides and trichomonacides.....	11.1	10.9	(X)	0.1	7.9	7.7	-	0.2
28348 15	Anthelmintics.....	5.7	(D)	(D)	0.4	5.0	(D)	(D)	0.5
28348 21	Systemic antibiotic preparations, total.....	454.2	(*)	(*)	(*)	331.5	(*)	(*)	(*)
	Broad and medium spectrum (single or in combinations with other antibiotics, except penicillins).....	255.1	237.1	(X)	17.9	215.8	197.6	(X)	18.1
	Penicillins (single):								
28348 23	Injectable.....	45.5	36.3	(X)	9.2	25.5	21.7	(X)	3.8
28348 25	Other forms.....	99.1	(D)	(X)	(D)	45.4	43.7	(X)	1.7
28348 27	Penicillin-streptomycin and/or dihydrostreptomycin combinations.....	9.5	8.3	(X)	1.3	8.0	6.4	(X)	1.6
28348 29	Streptomycin and/or dihydrostreptomycin (single and combinations, except penicillin combinations)	2.3	1.5	(X)	0.8	7.1	(D)	(X)	(D)
28348 31	Antibiotics in combination with sulfonamides.....	6.9	(D)	(X)	(D)	7.8	(D)	(X)	(D)
28348 39	Other systemic antibiotic preparations.....	35.9	(D)	(X)	(D)	21.9	(D)	(X)	(D)
28348 41	Topical antibiotic preparations.....	14.1	10.0	3.5	0.6	17.3	13.1	(D)	(D)
	Tuberculostatic agents:								
28348 51	Isoniazid (isonicotinic acid hydrazide) preparations.....	1.0	(D)	(X)	(D)	1.2	(D)	(X)	(D)
28348 55	Other antituberculars.....	3.7	3.7	(X)	0.0	3.1	(D)	(X)	(D)
28348 61	Antimalarials (plasmodicides).....	6.3	(D)	0.1	(D)	3.5	(D)	(D)	(D)
28348 63	Sulfonamides, except antibiotic-sulfonamide combinations.....	32.5	32.1	-	0.5	38.8	37.6	-	1.2
28348 65	Antifungal preparations.....	28.7	18.2	9.0	1.5	17.6	10.5	5.7	1.4
28348 69	Other anti-infective agents.....	5.5	5.0	(D)	(D)	3.8	(D)	(D)	(D)
	Antibacterials and antiseptics:								
28348 71	General.....	16.3	7.0	8.8	0.4	12.7	5.9	6.5	0.3
28348 75	Mouth and throat preparations.....	116.9	(D)	99.2	(D)	52.0	(D)	(D)	0.7
28348 98	Other pharmaceutical preparations affecting parasitic and infective diseases.....	1.0	1.0	0.0	0.0	2.5	2.3	(D)	(D)
28348 00	Pharmaceutical preparations affecting parasitic and infective diseases, for human use, n.s.k.....	1.9	(D)	(D)	(D)				
28349 --	Pharmaceutical preparations for veterinary use:								
	As reported in the census of manufactures <sup>1</sup> .....	136.8	(NA)	(NA)	(NA)	110.4	(NA)	(NA)	(NA)
	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	140.4	56.3	81.3	2.8	104.9	53.3	49.0	2.6
28349 11	Anesthetics.....	0.8	(D)	-	(D)	0.4	0.4	(D)	(D)
28349 21	Anthelmintics.....	15.5	3.8	11.4	0.3	7.2	2.5	4.4	0.2
28349 23	Antibiotics.....	48.0	22.2	24.9	0.9	33.9	26.4	6.3	1.2
28349 25	Antiseptics, wound dressings and fungicides.....	4.3	2.9	1.4	0.1	4.6	2.3	2.2	0.2

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967				1963			
		Total	Domestic shipments		Export shipments including those to foreign subsidiaries	Total	Domestic shipments		Export shipments including those to foreign subsidiaries
			Ethical	Pro- prietary			Ethical	Pro- prietary	
		(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)
	PHARMACEUTICAL PREPARATIONS--Continued								
	Pharmaceutical preparations for veterinary use--Continued								
	As reported in Current Industrial Reports MA-28G <sup>1</sup> --Con.								
28349 31	Hematinics.....	1.2	0.5	(D)	(D)	1.9	(D)	(D)	(Z)
28349 33	Hemostatics.....	0.2	0.1	(D)	(D)	0.2	(D)	(D)	(D)
28349 35	Hormones.....	4.8	3.4	(D)	(D)	4.0	3.2	(D)	(D)
28349 37	Intravenous solutions and electrolytes.....	2.3	1.9	0.3	0.1	2.3	1.8	359	0.1
28349 41	Nitrofurans.....	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
28349 43	Nutrients and tonics.....	5.0	3.2	1.7	0.0	1.9	1.3	0.6	(Z)
28349 45	Parasitocides, external.....	7.7	1.5	6.1	0.1	3.3	1.3	2.0	(Z)
28349 47	Sulfonamides.....	10.1	4.3	5.5	0.3	8.7	4.2	4.3	0.3
28349 51	Tranquilizers and ataractics.....	1.2	(D)	(D)	0.0	0.9	0.9	(D)	(D)
28349 55	Vitamins and minerals.....	18.4	4.1	13.5	0.8	17.0	2.8	13.8	0.3
28349 98	Other pharmaceutical preparations for veterinary use..	} <sup>5</sup> 20.9	} <sup>5</sup> 6.4	} <sup>5</sup> 14.3	} <sup>5</sup> 0.2	} <sup>5</sup> 18.7	} <sup>5</sup> 5.0	} <sup>5</sup> 13.6	} <sup>5</sup> 0.1
28349 00	Pharmaceutical preparations for veterinary use, n.s.k.								
	Pharmaceutical preparations, except biologicals, n.s.k.:								
	As reported in the census of manufactures <sup>1</sup> :								
28340 02	Companies with less than 10 employees.(See Note.).....	35.7	(NA)	(NA)	(NA)	} 24.3	(NA)	(NA)	(NA)
28340 00	Companies with 10 or more employees. (See Note.).....	16.6	(NA)	(NA)	(NA)				
28340 00	As reported in Current Industrial Reports MA-28G <sup>1</sup> .....	1.6	1.0	0.4	0.1	6.5	6.0	0.5	-

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

Definitions: Ethical-products primarily advertised or otherwise promoted to or prescribed by the health professions; medical, dental, pharmaceutical, nursing, etc. Proprietary-products primarily advertised or otherwise promoted to the general public.

\*Ethical, proprietary and export totals for these product groupings are not being published in order to permit the maximum publication of detailed product data.

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. n.s.k. Not specified by kind.

(X) Not applicable. (Z) Less than 0.1 when rounded.

<sup>1</sup>1967 product detail appears in Current Industrial Reports Series M28G, "Pharmaceutical Preparations, Except Biologicals." The variations between the two sets of figures are due primarily to the following reasons:

- Use of different bases for reporting value. Product class shipments of pharmaceutical preparations reported in the census of manufactures represent net sales value (total sales dollars, less discounts, allowances, and returns) f.o.b. plant. The value includes a profit (or loss) normally assigned to the manufacturing establishment to cover only those costs attributable to the establishment. For example, sales costs by separately maintained sales organizations are excluded. The data shown in Current Industrial Reports Series M28G, however, include value attributed by sales distribution, advertising, direct promotion, and research whether or not directly attributable to the establishment. In cases where manufacturing, distribution, and sales operations are consolidated for accounting purposes for the establishment, the two values are comparable.

- Duplication--in order to avoid duplication of shipment figures, preparations shipped in bulk quantities which were repackaged at another location have been omitted from the commodity survey, but the shipments of the repackager have been included. The census figures also include the bulk shipments.

<sup>2</sup>Code 2834121 combined with 2834139 in 1963.

<sup>3</sup>Code 2834211 and code 2834200 combined with 2834298.

<sup>4</sup>Cough drops selling at retail for 10 cents or less per package are coded as primary to industry 2071, "Confectionery Products."

<sup>5</sup>Code 2834941 combined with codes 2834998 and 2834900.

1967 CENSUS OF MANUFACTURES  
TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**

(See appendix, "Explanation of Terms")

Product code	Product	Delivered cost (million dollars)	
		1967	1963
	INDUSTRY 2834.--PHARMACEUTICAL PREPARATIONS		
	Materials, containers, and supplies, total.....	913.8	670.9
283318	Antibiotics for human and veterinary use (excluding antibiotics for animal feed).....	45.5	26.6
283317	Sulfa drugs, bulk.....	27.3	12.0
283301	Vitamins, natural and synthetic, bulk (excluding vitamins for animal feeds).....	57.5	36.1
	Containers:		
265011	Paperboard boxes and containers.....	68.4	55.1
322102	Glass.....	86.0	73.0
340001	Metal.....	28.7	20.6
307940	Plastic.....	40.7	20.3
970099	All other materials and components, parts, containers, and supplies consumed.....	504.4	390.7
976000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....	55.3	36.5

n.s.k. Not specified by kind.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2834, these small establishments accounted for approximately 0.0 percent of payrolls and 0.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.

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# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

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A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28D-1

## INDUSTRY SERIES

**preliminary  
report**

### Soap and other detergents

SIC Code 2841

The Soap and Other Detergents, Except Specialty Cleaners Industry includes establishments primarily engaged in manufacturing soap, synthetic organic detergents, inorganic alkaline detergents, or any combination thereof, and establishments producing crude and refined glycerin from vegetable and animal fats and oils. Establishments primarily engaged in manufacturing shampoos or shaving products, whether from soap or synthetic detergents, are classified in industry 2844; and synthetic glycerin in industry 2818.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Soap and Other Detergents Industry amounted to \$2,609.4 million, an increase of 23 percent compared with 1963. Value added by manufacture at \$1,428.0 million in 1967 was 26 percent more than value added in 1963. Average employment in the industry showed a decrease of 2 percent from 1963 to a total of 30.3 thousand employees in 1967.

Of the \$2,609.4 million total value of shipments and other receipts of establishments classified as soap and other detergents, \$410.4 million were products primary to other industries; and \$203.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 83 percent of the total manufactured

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2841.--SOAP AND OTHER DETERGENTS													
1967 Census....	667	205	30.3	241.3	20.2	40.4	145.3	1,428.0	1,195.1	2,609.4	49.1	252.3	83	92
1966 ASM <sup>1</sup> .....	(NA)	(NA)	28.8	221.5	19.1	39.4	133.1	1,296.9	1,110.0	2,395.9	31.2	226.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	30.0	218.3	19.8	40.0	128.0	1,219.5	1,063.7	2,285.7	36.6	206.9	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	31.7	226.0	20.7	42.0	133.3	1,206.7	1,030.8	2,227.8	28.2	210.6	(NA)	(NA)
1963 Census....	704	172	30.8	214.1	20.1	41.0	127.6	1,137.4	990.5	2,127.8	44.1	195.2	82	92
1962 ASM <sup>1</sup> .....	(NA)	(NA)	31.1	213.2	19.6	39.8	122.7	1,068.1	929.1	1,996.2	44.8	191.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	31.3	207.7	19.4	39.1	115.9	1,015.9	896.3	1,900.7	30.6	197.5	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	30.7	197.8	19.0	37.9	109.3	952.9	872.7	1,815.4	26.9	184.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	30.1	188.3	18.5	36.9	103.1	949.4	814.9	1,827.9	*27.0	165.0	(NA)	(NA)
1958 Census <sup>2</sup> ...	608	163	29.6	181.5	18.2	36.8	97.3	857.6	747.8	1,605.9	17.8	160.2	86	91

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 82 percent in 1963.

The total value of soap and other detergents shipped by all producers in 1967 was \$2,176.7 million of which \$1,995.6 million, or 92 percent, were shipped by plants classified in industry 2841, Soap and Other Detergents, while the

remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 92 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2841.--SOAP AND OTHER DETERGENTS												
United States, total.....	667	205	30.3	241.3	20.2	40.4	145.3	1,428.0	1,195.1	2,609.4	49.1	30.8	1,137.4
Northeast.....	214	53	8.1	62.2	5.7	11.2	39.8	315.7	256.3	572.1	13.5	9.2	271.1
Rhode Island.....	9	2	0.2	1.0	0.1	0.2	0.3	2.0	2.6	4.7	0.1	(D)	(D)
Connecticut.....	13	2	0.1	1.1	0.1	0.1	0.4	3.1	2.5	5.6	0.1	0.1	3.2
New York.....	70	14	2.2	17.2	1.5	3.1	10.9	62.0	57.1	116.9	(D)	2.4	55.2
New Jersey.....	57	23	4.0	31.1	2.9	5.7	21.3	181.9	140.8	323.5	7.7	4.6	152.6
East North Central....	165	57	10.0	81.3	6.5	13.1	46.7	510.3	448.4	950.4	15.2	9.6	383.1
Illinois.....	54	19	2.5	20.7	1.6	3.2	11.8	139.4	159.2	298.0	3.3	3.0	119.9
Michigan.....	30	8	1.4	9.4	0.7	1.5	4.1	58.5	34.6	91.2	1.7	(D)	(D)
Wisconsin.....	22	11	0.2	1.6	0.1	0.2	0.5	4.6	4.5	9.1	(Z)	(D)	(D)
West North Central....	47	17	3.7	29.5	2.6	5.2	19.7	202.4	159.5	360.0	6.9	3.8	172.0
Minnesota.....	19	6	0.3	2.3	0.1	0.2	0.6	5.0	5.3	10.3	0.3	(D)	(D)
South.....	136	43	4.8	37.1	3.1	6.4	21.4	243.1	184.8	425.5	9.2	4.4	172.2
East South Central..	19	5	0.4	2.3	0.1	0.3	0.6	11.5	6.8	18.3	0.1	0.3	6.6
West.....	105	35	3.7	31.2	2.3	4.6	17.8	156.4	146.2	301.4	4.3	3.9	138.9
Pacific.....	96	35	3.7	31.0	2.3	4.6	17.8	156.1	145.9	300.8	(D)	3.8	138.6
California.....	86	30	3.6	29.8	2.2	4.4	17.2	153.0	143.7	295.4	4.3	3.7	136.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2841- --	SOAP AND OTHER DETERGENTS, TOTAL.....		(X)	2,176.7	(X)	1,780.7
28411 --	Alkaline detergents and acid-type cleaners, total.....		(X)	316.8	(X)	224.9
	Alkaline detergents, household (products sold in containers holding 25 pounds or less and 1 gallon or less and for use by family units):					
	Machine dishwashing compounds:					
28411 11	Liquid.....	Million gals...	(X)	( <sup>1</sup> )	(X)	( <sup>1</sup> )
28411 13	Dry (solid).....	Million lbs....	172.1	45.9	71.0	19.3
	Other alkaline detergents, household:					
28411 15	Liquid.....	Million gals...	(S)	21.0	4.9	13.3
28411 17	Dry (solid).....	Million lbs....	150.7	27.5	122.2	24.1
	Alkaline detergents, nonhousehold (bulk products sold in containers holding over 25 pounds or over 1 gallon, and for industrial, institutional, or commercial use regardless of package size):					
	Machine dishwashing compounds:					
28411 21	Liquid.....	Million gals...	(S)	<sup>1</sup> 20.2	(NA)	<sup>1</sup> 15.2
28411 23	Dry (solid).....	Million lbs....	286.2	59.8	178.6	37.0
	Other alkaline detergents, nonhousehold:					
28411 25	Liquid.....	Million gals...	(S)	24.7	14.0	21.6
28411 27	Dry (solid).....	Million lbs....	360.7	56.8	412.4	59.7
	Acid-type cleansers containing an acid and/or wetting agent, and/or inorganic fillers, total.....	...do.....	243.3	46.9	161.6	30.3
28411 71	Dairy and food processing cleaners.....	...do.....	79.6	15.2	46.6	8.3
28411 75	Metal cleaners.....	...do.....	133.2	24.6	95.6	17.6
28411 79	All other.....	...do.....	30.5	7.1	19.4	4.4
28411 00	Alkaline detergents and acid-type cleaners, n.s.k.....		(X)	14.0	(X)	4.4
28412 --	Soaps, except specialty cleaners, nonhousehold, total.....		(X)	49.5	(X)	58.7
	Nonhousehold soaps (bulk products and products sold in containers holding over 25 pounds or over 1 gallon, and for industrial, institutional, or commercial use regardless of package size):					
	Chips, flakes, granulated, powdered and sprayed, including washing powders.....	Million lbs....	145.4	18.3	173.6	17.6
28412 27	Liquid (potash and other, excluding shampoos).....	Million gals...	(S)	16.1	11.7	15.3
28412 61	Mechanics' hand soaps, pastes, and bars, except waterless....	Million lbs....	21.8	3.7	56.7	9.3
28412 98	Other soaps, nonhousehold.....	...do.....	(X)	9.0	(X)	11.0
28412 00	Soaps, except specialty cleaners, nonhousehold, n.s.k.....		(X)	2.4	(X)	5.5
28413 --	Soaps, except specialty cleaners, household, total.....		(X)	332.1	(X)	296.3
	Household soaps (products sold in containers holding 25 pounds or less and 1 gallon or less, and for use by family units):					
	Bars (excluding medical and medicated mechanics' hand soap and shaving soap):					
28413 11	Toilet.....	Million lbs....	665.8	252.0	636.8	216.5
28413 13	Laundry and other household soaps (bars).....	...do.....	69.4	20.4	86.1	15.6
28413 22	Chips, flakes, granulated, powdered, and sprayed, including washing powders.....	...do.....	139.2	38.5	181.0	44.8
28413 51	Medical and medicated soaps (containing medicinal or germicidal additives of therapeutic value, but not soaps containing germicidal or other additives only as a deodorant) bars, liquid and paste.....		(X)	( <sup>2</sup> )	(X)	5.8
28413 61	Mechanics' hand soaps, all types except waterless.....	Million lbs....	32.4	8.3	26.9	7.0
28413 98	Other soaps, household.....	...do.....	(X)	<sup>2</sup> 5.8	(X)	4.0

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2841- --	SOAP AND OTHER DETERGENTS--Continued					
28413 00	Soaps, except specialty cleaners, household, n.s.k.....		(X)	7.1	(X)	2.6
28414 --	Glycerin, natural, total.....		(X)	<sup>3</sup> 47.8	(X)	<sup>4</sup> 38.5
28414 11	Crude, 100-percent basis.....	Million lbs...	51.9	10.5	<sup>4</sup> 74.7	<sup>4</sup> 9.8
28414 31	High-gravity, dynamite, and yellow distilled; 100-percent basis.....	...do.....	53.1	11.6	<sup>4</sup> 47.0	<sup>4</sup> 8.4
28414 51	Chemically pure, 100-percent basis.....	...do.....	107.4	25.7	<sup>4</sup> 114.1	<sup>4</sup> 20.3
28415 --	Synthetic organic detergents, household, total.....		(X)	1,227.2	(X)	1,029.4
	Household detergents (products sold in containers holding 25 pounds and less or 1 gallon and less, and for use by family units):					
	Dry (solid):					
28415 21	Light-duty.....	Million lbs...	(S)	76.6	190.0	57.6
	Heavy-duty:					
28415 25	Anionic base.....	...do.....	3,347.5	708.7	2,405.2 (NA)	527.1
28415 27	Nonionic base or other base.....	...do.....				78.1
	Liquid, (excluding shampoos):					
28415 31	Light-duty.....	Million gals..	(S)	236.2	90.8	235.0
28415 35	Heavy-duty.....	...do.....	(S)	44.5		
28415 39	General purpose cleaners.....	...do.....	(S)	86.1		
28415 53	Scouring cleansers with or without abrasives.....	Million lbs...	454.7	67.4	500.7	68.3
28415 00	Synthetic organic detergents, household, n.s.k.....		(X)	7.7	(X)	3.9
28416 --	Synthetic organic detergents, nonhousehold, total.....		(X)	136.5	(X)	115.3
	Nonhousehold detergents (bulk products and products sold in containers holding over 25 pounds or over 1 gallon, and for industrial, institutional, or commercial use regardless of package size):					
	Dry (solid):					
28416 21	Anionic base.....	Million lbs...	273.6	38.0	189.4	27.4
28416 29	Nonionic base or other base.....	...do.....	104.5	18.6	76.0	9.9
	Liquid:					
28416 31	Anionic base.....	Million gals..	(S)	37.7	15.7	33.0
28416 39	Nonionic base or other base.....	...do.....	(S)	32.8	20.1	35.9
28416 53	Scouring cleansers with or without abrasives.....	Million lbs...	(S)	4.5	21.4	3.4
28416 00	Synthetic organic detergents, nonhousehold, n.s.k.....		(X)	4.9	(X)	5.7
28410 00	Soap and other detergents, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	51.0	(X)	17.6
28410 02	Soap and other detergents, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	15.7		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>Code 2841111 combined with code 2841121.

<sup>2</sup>Code 2841351 combined with code 2841398.

<sup>3</sup>Data on quantities of glycerin (synthetic and natural) produced are shown in Current Industrial Report, Series M20K, Fats and Oils, Production, Consumption, and Factory and Warehouse Stocks.

<sup>4</sup>Includes natural glycerine only. Additional data on quantities produced and quantities and value shipped for synthetic glycerine are shown in the United States Tariff Commission's annual report "Synthetic Organic Chemicals, United States Production and Sales, 1963."



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967			1963				
				Total consumption of materials	Consumption of materials received from other establishments		Materials made and consumed in same plant	Total consumption of materials	Consumption of materials received from other establishments		Materials made and consumed in same plant
					Quantity	Delivered cost (million dollars)			Quantity	Delivered cost (million dollars)	
				(quantity)		(million dollars)	(quantity)	(quantity)			(quantity)
	INDUSTRY 2841.--SOAP AND OTHER DETERGENTS										
	Material, containers, and supplies, total.....			(X)	(X)	1,043.9	(X)	(X)	(X)	883.8	(X)
284309	Bulk surface active agents, except sulfonated oils and fats.....	Active wt...	Million lbs.	(S)	738.5	92.9	(S)	882.4	765.5	93.7	116.9
284308	Other emulsifiers, wetting agents, penetrants, etc.....	Active wt...	...do.....	(S)	153.8	22.1	(S)	117.5	116.6	12.9	0.9
284421	Perfume oil mixtures and blends.....			(X)	(X)	43.9	(X)	(X)	(X)	23.0	(X)
284141	Glycerine.....	100%.....	Million lbs.	(S)	85.2	16.5	(S)	88.2	68.3	9.5	19.9
209411	Grease and inedible tallow.....	...do.....		(X)	943.7	55.2	(X)	951.3	951.3	55.9	(X)
281971	Potassium pyrophosphate (TKPP).....	100% K <sub>4</sub> P <sub>2</sub> O <sub>7</sub> ...	Short tons..	(X)	(D)	(D)	(X)	(S)	(S)	6.0	(X)
281228	Sodium carbonate (soda ash).....	58% Na <sub>2</sub> O....	...do.....	(X)	194.0	7.6	(X)	145.5	145.5	4.9	(X)
281238	Sodium hydroxide (caustic soda).....	100% NaOH...	...do.....	(X)	295.8	22.8	(X)	260.9	260.9	20.0	(X)
281972	Sodium tripolyphosphate (STPP).....	100% Na <sub>5</sub> P <sub>3</sub> O <sub>10</sub> ...	...do.....	(X)	848.6	111.8	(X)	696.2	696.2	96.9	(X)
281973	Tetrasodium pyrophosphate (TSPP).....	100% Na <sub>4</sub> P <sub>2</sub> O <sub>7</sub> ...	...do.....	(X)	69.2	9.1	(X)	109.2	109.2	13.9	(X)
281974	Trisodium phosphate (TSP).....	100% Na <sub>3</sub> PO <sub>4</sub> ...	...do.....	(X)	76.8	8.6	(X)	(S)	(S)	3.9	(X)
209011	Vegetable oil.....		Million lbs.	(S)	251.6	32.0	(S)	387.2	387.1	47.2	(S)
	Containers:										
265011	Paperboard.....			(X)	(X)	115.4	(X)	(X)	(X)	90.3	(X)
340001	Metal.....			(X)	(X)	25.9	(X)	(X)	(X)	18.9	(X)
322101	Glass.....			(X)	(X)	9.9	(X)	(X)	(X)	8.4	(X)
307940	Plastic.....			(X)	(X)	79.9	(X)	(X)	(X)	63.5	(X)
970099	All other materials and components, parts, containers and supplies consumed.....			(X)	(X)	355.8	(X)	(X)	(X)	275.6	(X)
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....			(X)	(X)	34.5	(X)	(X)	(X)	139.4	(X)

(D) Withheld to avoid disclosing figures for individual companies. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2841, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
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POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

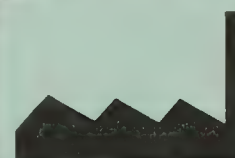
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-28D-2

## INDUSTRY SERIES

### Polishes and sanitation goods

SIC Code 2842

**preliminary  
report**

The Specialty Cleaning, Polishing, and Sanitation Preparations, Except Soap and Detergents, Industry includes establishments primarily engaged in manufacturing furniture, metal, and other polishes; waxes and dressings for fabricated leather and other materials; household, institutional and industrial plant disinfectants, deodorants and exterminating products; dry cleaning preparations; and other sanitation preparations.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Polishes and Sanitation Goods Industry

amounted to \$1,090.4 million, an increase of 44 percent compared with 1963. Value added by manufacture at \$653.7 million in 1967 was 55 percent more than value added in 1963. Average employment in the industry showed an increase of 18 percent from 1963 to a total of 19.3 thousand employees in 1967.

Of the \$1,090.4 million total value of shipments and other receipts of establishments classified as polishes and sanitation goods, \$193.3 million were products primary to other industries; and \$90.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 81 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 82 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2842.--POLISHES AND SANITATION GOODS													
1967 Census....	1,005	203	19.3	126.7	11.9	22.6	56.6	653.7	444.5	1,090.4	20.0	113.9	81	75
1966 ASM <sup>1</sup> .....	(NA)	(NA)	20.8	132.2	12.4	24.6	59.5	564.2	474.8	1,029.2	*29.5	103.7	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	18.5	117.0	10.9	20.9	50.0	484.8	422.4	903.2	15.7	93.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	15.8	96.1	9.0	17.9	42.9	431.1	341.9	772.3	12.2	70.0	(NA)	(NA)
1963 Census....	1,101	173	16.3	96.6	9.5	19.0	42.3	420.4	335.1	757.2	13.3	73.6	82	72
1962 ASM <sup>1</sup> .....	(NA)	(NA)	17.8	105.5	10.4	21.2	44.3	386.8	334.7	713.9	13.2	78.9	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	17.3	99.1	9.8	20.3	41.4	348.0	320.7	668.7	10.5	71.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	17.3	92.8	10.0	20.3	41.2	340.5	310.0	648.5	8.7	69.3	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	17.1	87.6	9.7	19.5	39.2	322.4	299.4	616.8	*12.7	66.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,156	188	16.4	82.6	9.4	17.8	35.6	295.6	290.0	585.0	7.1	63.1	84	80

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.  
(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of polishes and sanitation goods shipped by all producers in 1967 was \$1,069.8 million of which \$807.1 million, or 75 percent, were shipped by plants classified in industry 2842, Polishes and Sanitation Goods, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 72 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2842.--POLISHES AND SANITATION GOODS												
United States, total.....	1,005	203	19.3	126.7	11.9	22.6	56.6	653.7	444.5	1,090.4	20.0	16.3	420.4
New England.....	88	19	1.3	8.5	0.8	1.4	3.3	44.3	30.4	73.3	0.7	1.6	28.6
Massachusetts.....	55	15	0.9	5.9	0.6	1.1	2.5	32.2	25.3	56.1	0.5	(D)	(D)
Middle Atlantic.....	250	59	5.6	35.0	3.6	6.8	16.3	130.9	119.6	250.0	6.5	4.8	95.8
New York.....	128	26	2.6	16.0	1.9	3.6	8.2	59.4	52.3	109.5	(D)	2.6	52.7
New Jersey.....	62	20	1.7	11.6	0.9	1.8	4.7	37.4	41.3	82.1	0.6	1.1	27.6
Pennsylvania.....	60	13	1.3	7.5	0.8	1.5	3.4	34.2	26.0	58.4	(D)	1.1	15.6
East North Central....	211	54	6.1	43.3	3.9	7.5	21.5	333.2	173.2	502.5	8.9	(D)	(D)
Ohio.....	50	13	0.7	5.0	0.5	1.0	2.4	45.5	23.0	67.0	4.6	(D)	(D)
Illinois.....	73	19	2.5	15.7	1.7	3.2	8.1	103.9	68.4	171.9	1.3	1.5	51.4
West North Central....	98	24	2.3	16.4	1.2	2.3	5.7	42.8	44.5	86.4	1.3	(D)	(D)
Missouri.....	50	16	1.6	11.5	0.9	1.7	4.2	31.7	31.1	61.8	1.0	(D)	(D)
Kansas.....	14	3	0.2	0.9	0.1	0.2	0.4	2.4	4.2	6.7	0.1	0.1	1.7
South Atlantic.....	111	16	1.7	9.7	1.0	2.1	3.8	32.3	28.5	58.8	1.3	(D)	(D)
Maryland.....	17	8	0.8	4.3	0.5	1.2	2.0	9.0	13.3	21.8	0.5	0.7	7.2
East South Central....	33	4	0.3	1.1	0.2	0.3	0.5	8.8	6.1	15.2	0.3	(D)	(D)
West South Central....	70	6	0.4	2.3	0.3	0.5	1.0	16.8	9.0	25.9	0.1	(D)	(D)
Texas.....	41	3	0.3	1.7	0.2	0.3	0.7	11.4	5.4	16.9	0.1	0.4	8.0
West.....	144	21	1.6	10.7	0.9	1.7	4.4	44.5	33.1	78.2	0.9	1.3	27.4
California.....	110	21	1.4	9.8	0.8	1.5	4.1	42.3	31.0	73.8	(D)	1.1	25.9

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (Million dollars)		Quantity	Value (Million dollars)
2842- --	POLISHES AND SANITATION GOODS, TOTAL.....		(X)	(X)	1,069.8	(X)	(X)	747.8
28421 --	Household insecticides and repellents, total.....		(X)	(X)	129.3	(X)	(X)	110.8
	Insecticides (for crawling insects, excluding fumigants):							
28421 12	Aerosols.....		(X)	(X)	23.7	(X)	(X)	14.5
28421 15	Nonaerosols.....		(X)	(X)	20.3	(X)	(X)	17.8
	Insecticides (for flying insects, excluding fumigants):							
28421 21	Aerosols.....		(X)	(X)	35.5	(X)	(X)	33.2
28421 24	Nonaerosols.....		(X)	(X)	18.3	(X)	(X)	24.0
28421 35	Repellents and attractants (for insects, birds, fish, and other animals).....		(X)	(X)	11.0	(X)	(X)	3.3
28421 71	Rodenticides.....		(X)	(X)	9.0	(X)	(X)	6.3
28421 89	Fumigants, other than soil fumigants, including space.....		(X)	(X)	2.4	(X)	(X)	5.3
28421 00	Household insecticides and repellents, n.s.k.....		(X)	(X)	9.1	(X)	(X)	6.5
28423 --	Specialty cleaning and sanitation products, total...		(X)	(X)	523.6	(X)	(X)	331.7
28423 11	Glass window cleaning preparations.....		(X)	(X)	30.7	(X)	(X)	17.0
28423 21	Oven cleaners.....		(X)	(X)	16.7	(X)	(X)	(NA)
28423 31	Toilet bowl cleaner and drain pipe solvents.....	Million lbs..	(S)	(S)	63.6	(X)	187.6	36.8
28423 32	Disinfectants, for uses other than agricultural...		(X)	(X)	34.0	(X)	(X)	29.1
28423 41	Wallpaper, window shade and wall cleaner.....		(X)	(X)	( <sup>1</sup> )	(X)	(X)	(NA)
28423 51	Rug and upholstery cleaners, consumer type preparations.....		(X)	(X)	14.3	(X)	(X)	(NA)
28423 71	Household ammonia.....		(X)	(X)	11.9	(X)	(X)	9.0
	Deodorants, nonpersonal:							
28423 81	Aerosol type.....		(X)	(X)	37.3	(X)	(X)	26.4
28423 85	Other.....		(X)	(X)	12.6	(X)	(X)	16.8
28423 93	Dry cleaning spotting preparation (liquid).....	Million gals.	(S)	(S)	4.3	2,420	2.4	7.0
28423 94	Fabric softeners.....		(X)	(X)	55.3	(X)	(X)	46.9
	Laundry starch preparations, including permanent types (resin, starch, etc.):							
28423 95	Aerosol.....		(X)	(X)	70.8	(X)	(X)	21.4
28423 96	Other liquid.....		(X)	(X)	12.1	(X)	(X)	
28423 97	Dry.....		(X)	(X)	8.1	(X)	(X)	23.2
28423 98	Other specialty detergents, including sweeping compounds and waterless hand cleaners.....		(X)	(X)	<sup>1</sup> 118.8	(X)	(X)	78.2
28423 00	Specialty cleaning and sanitation products, n.s.k.....		(X)	(X)	33.1	(X)	(X)	20.0
28424 --	Polishing preparations and related products, total..		(X)	(X)	323.1	(X)	(X)	278.8
28424 11	Automobile body polish and cleaners.....		(X)	(X)	33.7	(X)	(X)	29.1
28424 15	Furniture polishes and cleaners.....		(X)	(X)	60.2	(X)	(X)	31.3
	Floor polish:							
28424 21	Water emulsion.....	Million gals.	(S)	(S)	112.6	(X)	46.7	104.5
28424 23	Liquid (other than water emulsion).....	..do.....	(S)	(S)	5.4	7.2	6.9	15.4
28424 25	Other than liquid form including cake and paste..	Million lbs..	(S)	(S)	11.0	25.6	25.3	10.4
	Shoe polishes and cleaners:							
28424 42	Liquid.....	Million gals.	(S)	(S)	16.9	(S)	(S)	30.3
28424 44	Paste and cake.....	Million lbs..	(S)	(S)	15.7	(S)	(S)	13.7
	Leather dressings and finishes (excluding shoe polish):							
28424 61	Leather blackings and stains.....	..do.....	(S)	(S)	10.9	15.0	15.0	5.3
28424 65	Other leather dressings and finishes.....	..do.....	(S)	(S)	17.1	44.3	45.0	15.1
28424 98	Related products including metal polish and polishing cloths and papers.....		(X)	(X)	9.5	(X)	(X)	15.1
28424 00	Polishing preparations and related products, n.s.k.....		(X)	(X)	21.1	(X)	(X)	8.5

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (\$1,000)		Quantity	Value (\$1,000)
2842- --	POLISHES AND SANITATION GOODS--Continued							
28420 00	Polishes and sanitation goods n.s.k. (For companies with more than 10 employees. See Note.).....		(X)	(X)	67.2	(X)	(X)	26.5
28420 02	Polishes and sanitation goods, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	(X)	26.6			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>Code 2842341 combined with 2842398 in 1967.



TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967			1963				
				Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)	Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant (quantity)
					Quantity	Delivered cost (million dollars)			Quantity	Delivered cost (million dollars)	
	INDUSTRY 2842.--POLISHES AND SANITATION GOODS										
	Material, containers, and supplies, total.			(X)	(X)	384.9	(X)	(X)	(X)	280.9	(X)
284309	Bulk surface active agents, except sulfonated oils and fats.	Active wt.	Million lbs.	(S)	45.3	7.5	(S)	30.0	29.6	5.1	0.3
284308	Other emulsifiers, wetting agents, penetrants, etc.	Active wt.	do.	(S)	14.4	3.2	(S)	13.7	11.9	3.7	1.8
284421	Perfume oil mixtures and blends.			(X)	(X)	3.9	(X)	(X)	(X)	2.3	(X)
284141	Glycerine.	100%	Million lbs.	(S)	1.2	0.3	(S)	(D)	1.3	0.3	(D)
209411	Grease and inedible tallow.		do.	6.2	6.2	0.9	(X)	4.1	4.1	0.5	(X)
281971	Potassium pyrophosphate (TKPP).	100%									
		K <sub>4</sub> P <sub>2</sub> O <sub>7</sub>	Short tons	(S)	(S)	1.2	(X)	0.5	0.5	0.1	(X)
281228	Sodium carbonate (soda ash).	58% Na <sub>2</sub> O	do.	(S)	(S)	0.7	(X)	6.5	6.5	0.3	(X)
281238	Sodium hydroxide (caustic soda).	100% NaOH	do.	(S)	(S)	1.6	(X)	10.6	10.6	1.1	(X)
281972	Sodium tripolyphosphate (STPP).	100%									
		Na <sub>5</sub> P <sub>3</sub> O <sub>10</sub>	do.	10.1	10.1	1.5	(X)	6.6	6.6	0.8	(X)
281973	Tetrasodium pyrophosphate (TSPP).	100%									
		Na <sub>4</sub> P <sub>2</sub> O <sub>7</sub>	do.	(D)	(D)	(D)	(X)	0.2	0.2	0.1	(X)
281974	Trisodium phosphate (TSP).	100%									
		Na <sub>3</sub> PO <sub>4</sub>	do.	(S)	(S)	0.3	(X)	2.6	2.6	0.3	(X)
209011	Vegetable oil.		Million lbs.	(S)	10.4	1.6	(S)	4.6	4.6	0.7	(X)
	Containers:										
265011	Paperboard.			(X)	(X)	14.9	(X)	(X)	(X)	9.1	(X)
340001	Metal.			(X)	(X)	60.4	(X)	(X)	(X)	50.7	(X)
322101	Glass.			(X)	(X)	11.8	(X)	(X)	(X)	9.7	(X)
307940	Plastic.			(X)	(X)	22.4	(X)	(X)	(X)	4.9	(X)
970099	All other materials and components, parts, containers and supplies consumed.			(X)	(X)	157.6	(X)	(X)	(X)	123.5	(X)
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .			(X)	(X)	95.1	(X)	(X)	(X)	167.9	(X)

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2842, these small establishments accounted for approximately 4 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--** All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--** This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--** This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--** The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--** In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--** The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products**--In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture**--This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment**--For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

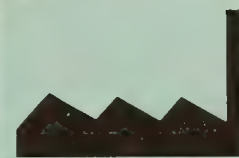
These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories**--Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



MC67(P)-28D-3

## INDUSTRY SERIES

### Surface active agents

SIC Code 2843

**preliminary  
report**

The Surface Active Agents, Finishing Agents, Sulfonated Oils and Assistants Industry includes establishments primarily engaged in producing surface active preparations for use as wetting agents, emulsifiers, and penetrants. Establishments engaged in producing sulfonated oils and fats and related products are also included.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Surface Active Agents Industry amounted to \$291.4 million, an increase of 64 percent compared with 1963. Value added by manufacture

at \$128.1 million in 1967 was 69 percent more than value added in 1963. Average employment in the industry showed an increase of 39 percent from 1963 to a total of 5.7 thousand employees in 1967.

Of the \$291.4 million total value of shipments and other receipts of establishments classified as surface active agents, \$42.8 million were products primary to other industries; and \$30.1 million were receipts for miscellaneous activities. The industry shipments of primary products represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 80 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2843.--SURFACE ACTIVE AGENTS													
1967 Census....	164	71	5.7	49.3	3.0	6.2	20.1	128.1	165.0	291.4	7.9	40.4	84	53
1966 ASM <sup>1</sup> .....	(NA)	(NA)	5.0	45.9	2.6	5.6	17.8	112.5	142.6	252.1	9.1	30.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	4.6	38.6	2.4	5.0	15.3	96.0	120.4	214.5	7.2	26.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	4.5	36.0	2.4	4.9	14.4	88.7	114.1	200.5	*5.8	25.7	(NA)	(NA)
1963 Census....	148	59	4.1	31.9	2.2	4.6	12.8	75.7	101.5	177.8	7.2	22.5	80	47
1962 ASM <sup>1</sup> .....	(NA)	(NA)	*2.8	*21.1	*1.6	*3.3	*8.9	*54.1	*80.0	*132.1	*10.5	*20.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	*2.8	*20.3	*1.6	*3.3	*8.5	*60.8	*84.2	*144.0	*12.3	*19.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	*3.0	*20.8	*1.8	*3.5	*8.8	*60.0	*77.8	*137.0	*1.9	*18.9	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	*3.2	*20.8	*1.9	*4.0	*9.4	*83.9	*87.6	*175.6	*3.7	*19.8	(NA)	(NA)
1958 Census <sup>2</sup> ...	142	46	3.1	19.5	1.8	3.7	8.9	52.4	73.3	126.6	3.1	16.0	80	45

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of surface active agents shipped by all producers in 1967 was \$410.4 million of which \$218.5 million, or 53 percent, were shipped by plants classified in industry 2834, Surface Active Agents, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 47 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2843.--SURFACE ACTIVE AGENTS												
United States, total.....	164	71	5.7	49.3	3.0	6.2	20.1	128.1	165.0	291.4	7.9	4.1	75.7
Northeast.....	95	35	3.0	27.8	1.4	2.9	9.6	56.4	68.2	124.4	3.2	2.4	36.4
Rhode Island.....	10	4	0.2	1.4	0.1	0.2	0.5	2.6	5.7	8.2	(Z)	(D)	(D)
New York.....	14	3	0.2	1.6	0.1	0.2	0.6	3.3	4.0	7.2	0.1	(D)	(D)
New Jersey.....	35	16	1.8	16.7	0.7	1.5	5.3	32.7	39.2	71.7	2.4	1.5	19.2
North Carolina.....	13	9	0.4	3.3	0.2	0.4	1.0	10.3	12.9	23.1	0.7	0.2	3.8
East South Central....	7	2	0.1	0.6	0.1	0.1	0.3	2.1	5.3	7.4	0.5	(D)	(D)
Tennessee.....	7	2	0.1	0.6	0.1	0.1	0.3	2.1	5.3	7.4	0.5	(D)	(D)
California.....	8	5	0.3	2.6	0.2	0.4	1.0	5.7	13.1	18.9	0.2	0.2	6.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
2843- --	SURFACE ACTIVE AGENTS, TOTAL.....		(X)	(X)	410.4	(X)	(X)	283.6
	Assistants and finishes, textile and leather:							
28430 11	Sulfonated oils and fats.....	Million lbs.	(X)	123.5	24.2	135.3	133.5	27.7
28430 31	Softeners, soluble oils and greases.....	do.....	(X)	66.7	14.2	(X)	73.1	14.5
28430 51	Other assistants.....	do.....	(X)	50.0	13.2	45.3	46.0	11.1
28430 71	Finishes.....	do.....	(X)	211.6	55.5	(X)	121.7	29.5
	Bulk surface active agents other than sulfonated oils and fats:							
28430 81	Primarily for purposes other than for detergents (emulsifiers, penetrants, wetting agents, etc.) <sup>2</sup> .		(X)	(X)	272.7	(X)	(X)	91.8
28430 91	Primarily for detergent purposes <sup>2</sup> .....					(X)	(X)	96.9
28430 00	Surface active agents, n.s.k. (For companies with more than 10 employees. See Note.).....		(X)	(X)	27.8	(X)	(X)	12.2
28430 02	Surface active agents, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	(X)	2.8			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

<sup>1</sup>Includes figures for egg yoke, wetting agents, waterproofing emulsions, mordants other than tannic acid and an undetermined quantity of sizes, soaps, and synthetic detergents.

<sup>2</sup>Data on quantities produced and quantities and values shipped for many of the synthetic organic chemicals included in this grouping are shown in the United States Tariff Commission's annual report, "Synthetic Organic Chemicals, United States Production and Sales."

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2843, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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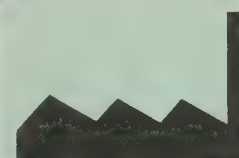
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28D-4

## INDUSTRY SERIES

**preliminary  
report**

### Toilet preparations

SIC Code 2844

The Perfumes, Cosmetics, and Other Toilet Preparations Industry includes establishments primarily engaged in manufacturing perfumes (natural and synthetic), cosmetics, and other toilet preparations. This industry also includes establishments primarily engaged in blending and compounding perfume bases; and those manufacturing shampoos and shaving products, whether from soap or synthetic detergents. Establishments primarily engaged in manufacturing synthetic perfume and flavoring materials are classified in industry 2818, and essential oils in industry 2899.

definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Toilet Preparations Industry amounted to \$2,539.5 million, an increase of 42 percent compared with 1963. Value added by manufacture at \$1,742.9 million in 1967 was 41 percent more than value added in 1963. Average employment in the industry showed an increase of 22 percent from 1963 to a total of 41.9 thousand employees in 1967.

The classification of establishments for which data are tabulated in this report is based upon the

Of the \$2,539.5 million total value of shipments and other receipts of establishments classified

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2844.--TOILET PREPARATIONS													
1967 Census....	673	194	41.9	264.2	26.5	50.6	125.4	1,742.9	815.9	2,539.5	52.5	279.9	94	81
1966 ASM <sup>1</sup> .....	(NA)	(NA)	40.6	248.2	25.3	49.6	121.6	1,674.9	780.2	2,430.6	33.6	255.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	37.8	215.7	23.9	46.5	105.2	1,506.0	709.9	2,201.2	35.4	212.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	35.4	193.3	21.7	43.1	97.1	1,378.8	629.0	2,003.8	19.9	189.9	(NA)	(NA)
1963 Census....	707	183	34.3	183.2	21.6	42.4	92.5	1,232.9	565.1	1,792.7	20.2	175.0	91	84
1962 ASM <sup>1</sup> .....	(NA)	(NA)	33.6	174.0	20.9	40.5	80.7	1,015.9	491.1	1,501.0	14.4	153.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	31.6	163.6	20.2	40.1	79.6	929.8	436.2	1,363.5	11.4	134.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	30.8	150.5	19.6	38.3	73.3	863.5	401.0	1,261.4	11.6	127.6	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	31.0	146.9	19.8	38.0	72.0	838.2	395.9	1,229.5	*44.9	127.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	748	181	29.5	134.0	18.5	36.0	66.7	697.5	358.9	1,059.2	14.3	117.1	91	81

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

as toilet preparations, \$138.6 million were products primary to other industries; and \$136.9 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 91 percent in 1963.

The total value of toilet preparations shipped by all producers in 1967 was \$2,802.8 million of which \$2,264.0 million, or 81 percent, were shipped by plants classified in industry 2844,

Toilet Preparations, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 84 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	INDUSTRY 2844.--TOILET PREPARATIONS												
United States, total.....	673	194	41.9	264.2	26.5	50.6	125.4	1,742.9	815.9	2,539.5	52.5	34.3	1,232.9
New England.....	33	10	3.1	17.8	2.2	4.3	10.5	232.9	99.2	327.8	13.4	3.3	132.5
Middle Atlantic.....	274	86	21.1	132.5	13.3	25.2	61.8	640.6	318.9	949.6	19.2	17.1	516.4
New York.....	182	49	9.6	57.2	6.2	11.5	26.4	271.8	132.3	404.8	5.9	8.2	212.2
New Jersey.....	61	32	10.7	71.4	6.6	12.9	34.1	344.1	178.6	513.1	12.4	8.6	300.6
Pennsylvania.....	31	5	0.8	3.9	0.4	0.8	1.4	24.7	8.0	31.8	0.9	0.3	3.6
North Central.....	167	52	11.7	76.1	7.6	14.7	37.9	667.3	304.4	968.8	10.5	8.9	450.5
Wisconsin.....	10	3	0.4	1.9	0.3	0.6	1.2	4.5	3.3	7.7	0.1	(D)	(D)
South Atlantic.....	41	10	1.1	7.3	0.5	1.0	2.2	40.9	16.0	56.3	0.8	1.0	37.7
East South Central....	21	5	0.6	3.0	0.4	0.8	1.6	24.0	9.6	33.6	0.2	0.5	14.5
West South Central....	35	4	0.2	1.0	0.1	0.2	0.5	2.8	2.9	5.6	0.1	0.2	2.1
Texas.....	26	■	0.2	0.9	0.1	0.2	0.4	2.5	2.6	5.0	0.1	(D)	(D)
West.....	102	27	4.1	26.5	2.3	4.3	10.8	134.4	65.0	197.8	8.3	3.2	79.2
California.....	89	23	3.9	25.3	2.2	4.1	10.4	127.1	62.9	188.7	(D)	3.1	75.3

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2844- --	TOILET PREPARATIONS, TOTAL.....		(X)	2,802.8	(X)	1,858.6
28441 --	Shaving preparations, total.....		(X)	178.4	(X)	111.1
	Shaving soap and cream:					
28441 33	Tube and jar.....	Million lbs...	6.6	6.7	(S)	14.8
28441 37	Aerosols.....	do.....	(S)	64.9	(S)	36.2
28441 41	Stick, powder, or cake.....	do.....	(S)	4.1	(S)	5.0
28441 56	Aftershave preparations (all forms).....		(S)	92.9	(X)	42.8
28441 59	Other shaving preparations, including preshave preparations and styptics.....		(X)	8.0	(X)	11.2
28441 00	Shaving preparations, n.s.k.....		(X)	1.8	(X)	1.1
28442 --	Perfumes, toilet water, and colognes, total.....		(X)	389.9	(X)	208.6
28442 11	Perfume oil mixtures and blends.....				(X)	52.9
28442 23	Perfumes (liquid and solid).....		(S)	375.5	(X)	43.1
28442 32	Toilet waters and colognes (liquid and solid).....				(X)	108.0
28442 00	Perfumes, toilet water, and colognes, n.s.k.....		(X)	14.4	(X)	4.7
28443 --	Hair preparations (including shampoos), total.....		(X)	771.0	(X)	592.7
	Shampoos, including products with additives for tints, coloring, or dandruff removal:					
28443 13	Soap (all forms).....				(S)	6.9
	Synthetic organic detergents:					
28443 16	Liquid.....	Million gals..	(S)	195.1	13.6	80.0
28443 18	Pastes, creams, and jellies.....	Million lbs...			20.7	39.9
28443 21	Hair tonics, including hair and scalp conditioners.....	1,000 gals....	(S)	41.5	2.7	44.5
	Permanent cold wave solutions, neutralizers, and rinses:					
28443 36	Home wave kits (complete and refill).....	Units.....	(S)	42.7	(X)	42.7
28443 39	Commercial.....	Million gals..	(S)	10.8	1.6	22.1
28443 41	Hair dressings, including brilliantines, creams, and pomades....				(X)	85.1
28443 51	Hair coloring preparations (bleaches, dyes, rinses, tints, etc.)		(X)	249.6	(X)	93.2
	Wave set preparations:					
28443 63	Liquid hair spray.....		(S)	178.8	(S)	144.1
28443 65	Hair rinses (excluding color rinses).....		(S)	25.4	(S)	14.2
28443 98	Other hair preparations, including heat setting wave solutions..		(X)	10.4	(X)	8.2
28443 00	Hair preparations, n.s.k.....		(X)	16.7	(X)	11.7
28444 --	Dentifrices, including mouth washes, gargles and rinses, total....		(X)	333.9	(X)	228.4
28444 11	Toothpaste, including aerosols.....	Million lbs...	(S)	234.3	132.5	175.3
28444 31	Toothpowder.....	do.....	1.5	2.1	2.2	3.2
28444 51	Denture cleaner.....	do.....	(X)	(1)	(S)	17.4
28444 71	Mouthwashes, rinses, and breath sweeteners excluding antiseptic mouthwashes and gargles.....		(S)	42.1	(X)	19.7
28444 98	Other oral hygiene products, including dental floss and dental adhesives, excluding toothbrushes and toothpicks.....		(X)	51.4	(X)	12.0
28444 00	Dentifrices, mouthwashes and related products, n.s.k.....		(X)	4.0	(X)	0.9
28445 --	Other cosmetics and toilet preparations, total.....		(X)	1,040.4	(X)	698.2
	Creams (excluding shaving, hair, and deodorant):					
28445 11	Cleansing creams.....	Units.....	(S)	56.2	(X)	23.6
28445 12	Foundation creams.....	do.....	(S)	34.8	(X)	25.8
28445 13	Lubricating creams, including hormone creams.....		(X)	43.2	(X)	33.0
28445 14	Other creams.....		(X)	38.5	(X)	45.8
	Lotions and oils (excluding hair, aftershave, and bath):					
28445 15	Suntan, including oils.....		(S)	58.4	(X)	22.2
28445 16	Cleansing lotions.....		(X)	20.9	(X)	14.5
28445 17	Cosmetic oils, including baby oils but excluding suntan oils..		(X)	12.6	(X)	10.8
28445 18	Hand lotions.....		(S)	58.2	(X)	55.2
28445 19	Other lotions and oils, excluding hair, aftershave, and bath..		(X)	9.5	(X)	14.9
28445 21	Lip preparations (lipstick, lip rouge, etc.).....		(S)	92.5	(S)	65.6
28445 22	Rouges (excluding lip rouge).....		(X)	6.3	(X)	4.3
28445 23	Eye preparations (mascara, eye shadow, eye liners, eye creams, etc.).....		(S)	89.5	(X)	41.9

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (\$1,000)	Quantity	Value (\$1,000)
28445 --	Other cosmetics and toilet preparations,--Continued					
	Deodorant (personal):					
28445 24	Liquid (including aerosols).....		(S)	131.1	(S)	53.6
28445 25	Cream.....		(S)	30.7	(NA)	31.2
28445 26	All other.....		(S)	23.5	(NA)	9.5
	Manicuring preparations:					
28445 31	Nail lacquers and enamels.....	Units.....	(S)	33.9	(X)	23.2
28445 33	Nail lacquers and enamel removers.....	do.....	(X)	9.2	(X)	4.9
28445 39	Other manicuring preparations.....				(X)	1.7
	Powder:					
28445 41	Talcum and toilet powder.....		(S)	86.2	(S)	65.9
28445 43	Face powder.....		(S)	43.6	(S)	32.3
28445 45	Liquid and compact for wet application.....		(X)	22.2	(X)	21.7
28445 48	Other powder, including foot powder (cream, sachet, and paste).....		(X)	6.6	(X)	11.4
28445 61	Bath salts, tablets, oils, and bubble bath.....		(S)	64.3	(X)	37.0
28445 98	Other cosmetics and toiletries, including depilatories.....		(X)	18.5	(X)	24.6
28445 00	Other cosmetics and toiletries, n.s.k.....		(X)	50.0	(X)	23.7
28440 00	Toilet preparations, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	73.4	(X)	19.6
28440 02	Toilet preparations, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	15.8		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not elsewhere classified. Revised. (X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Code 28444 51 included in code 28444 98.



TABLE 4. **Materials Consumed, by Kind: 1967 and 1963**—Continued

(See appendix, "Explanation of Terms")

Product code	Product	Delivered cost (million dollars)	
		1967	1963
	INDUSTRY 2844.--TOILET PREPARATIONS		
	Materials, containers, and supplies, total.....	705.2	504.7
	Containers:		
307940	Plastics.....	82.0	59.0
322102	Glass.....	80.5	72.2
260091	Paper and paperboard.....	81.3	55.4
340001	Metal.....	77.5	69.5
970099	All other materials and components, parts, containers, and supplies consumed.....	286.0	204.7
976000	Materials, containers, supplies, n.s.k. <sup>1</sup> .....	97.9	43.9

n.s.k. Not specified by kind.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2844, these small establishments accounted for approximately 1 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

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BUREAU OF THE CENSUS  
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**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Paints and allied products

SIC Code 2851

The Paints, Varnishes, Lacquers, Enamels and Allied Products Industry includes establishments primarily engaged in manufacturing paints (in paste and ready mixed form), varnishes, lacquers, enamels, and shellac, putties and caulking compounds; wood fillers and sealers; paint and varnish removers; paint brush cleaners, and allied paint products.

The classification of establishments for which data are tabulated in this report is based upon definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Paints and Allied Products Industry amounted to \$2,939.8 million, an increase of 20

percent compared with 1963. Value added by manufacture at \$1,329.6 million in 1967 was 20 percent more than value added in 1963. Average employment in the industry showed an increase of 9 percent from 1963 to a total of 66.7 thousand employees in 1967.

Of the \$2,939.8 million total value of shipments and other receipts of establishments classified as paints and allied products, \$162.4 million were products primary to other industries; and \$180.4 million were receipts for miscellaneous activities. The industry shipments of primary products represented 94 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 95 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
INDUSTRY 2851.--PAINTS AND ALLIED PRODUCTS														
1967 Census....	1,704	683	66.7	497.1	36.9	73.8	224.9	1,329.6	1,623.2	2,939.8	82.2	430.1	94	96
1966 ASM <sup>1</sup> .....	(NA)	(NA)	67.2	487.6	37.2	75.8	225.1	1,348.3	1,645.1	2,970.4	63.1	414.0	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	65.2	453.2	36.0	73.3	208.1	1,256.7	1,536.0	2,785.6	63.1	370.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	61.0	424.9	33.9	70.2	195.3	1,146.5	1,430.4	2,553.0	39.0	353.2	(NA)	(NA)
1963 Census....	1,788	654	61.3	401.2	33.8	69.1	183.5	1,111.7	1,350.2	2,456.4	37.7	340.2	95	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	58.2	374.8	32.3	66.4	168.4	955.9	1,231.8	2,196.0	29.4	307.2	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	58.4	359.8	32.8	65.5	162.4	912.5	1,178.1	2,096.1	26.8	300.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	59.2	359.2	33.5	66.7	162.5	902.4	1,209.6	2,119.4	26.4	289.8	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	60.8	349.4	34.3	68.4	162.8	915.8	1,219.0	2,124.7	25.3	306.9	(NA)	(NA)
1958 Census <sup>2</sup> ....	1,709	600	58.8	323.4	33.2	66.9	153.1	806.9	1,072.9	1,878.7	35.4	280.4	94	95

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 3, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of paints and allied products shipped by all producers in 1967 was \$2,693.4 million of which \$2,597.0 million, or 96 percent, were shipped by plants classified in industry 2851, Paints and Allied Products, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

#### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2851, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

M28F, Paint, Varnish, and Lacquer.



TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
INDUSTRY 2851. --PAINTS AND ALLIED PRODUCTS													
United States, Total.....	1,704	683	66.7	497.1	36.9	73.8	224.9	1,329.6	1,623.2	2,939.8	82.2	61.3	1,111.7
New England.....	98	30	2.1	15.3	1.2	2.4	6.9	38.0	43.0	80.3	0.9	2.3	36.1
Massachusetts.....	67	23	1.6	11.1	1.0	1.9	5.5	29.1	31.6	60.2	0.7	1.7	28.4
Connecticut.....	17	4	0.3	2.3	0.1	0.3	0.7	5.1	5.4	10.2	0.1	(D)	(D)
Middle Atlantic.....	447	167	16.5	123.6	9.8	19.0	58.9	327.8	385.4	710.1	20.2	15.4	274.0
New York.....	181	50	4.4	31.5	2.5	5.1	14.1	83.8	99.1	181.5	8.3	3.7	59.5
New Jersey.....	184	81	7.6	58.1	4.9	9.2	29.9	168.6	197.4	363.3	7.9	7.0	139.2
Pennsylvania.....	82	36	4.4	33.9	2.4	4.6	14.9	75.4	89.0	165.3	4.1	4.7	75.3
East North Central....	400	184	22.8	174.2	12.5	25.4	79.3	460.5	565.6	1,020.3	21.4	21.8	387.0
Ohio.....	113	55	7.3	54.7	3.8	7.7	23.5	140.8	157.1	296.3	6.6	6.2	102.0
Indiana.....	35	15	1.5	12.4	0.7	1.5	4.4	26.7	27.7	54.2	1.1	1.5	20.6
Illinois.....	152	77	9.2	68.8	5.4	11.0	33.7	189.0	248.5	434.8	8.3	9.1	158.9
Michigan.....	69	29	4.0	31.4	2.2	4.3	15.0	87.7	112.7	199.2	4.8	3.8	82.0
Wisconsin.....	31	8	0.9	7.0	0.4	0.9	2.7	16.3	19.4	35.8	0.6	1.1	23.4
West North Central....	108	49	4.6	33.9	2.6	5.2	15.2	85.1	105.3	189.1	4.7	3.8	75.2
Minnesota.....	22	9	0.6	4.7	0.3	0.7	1.9	9.1	15.1	23.7	0.5	0.6	8.0
Iowa.....	11	6	0.5	4.0	0.4	0.7	2.3	24.1	22.4	46.1	(D)	0.5	18.8
Missouri.....	64	31	3.2	23.8	1.7	3.5	10.2	48.8	62.9	111.2	3.5	2.5	46.1
South Atlantic.....	177	70	5.6	37.9	2.6	5.4	13.1	97.9	122.9	218.4	14.1	(D)	(D)
Maryland.....	30	17	1.5	10.9	0.7	1.5	3.6	25.2	28.3	53.5	0.6	1.3	18.5
Virginia.....	17	7	0.4	2.9	0.2	0.5	1.1	6.8	10.1	16.8	5.4	0.4	5.0
North Carolina.....	21	10	0.7	5.4	0.4	0.8	2.0	14.4	20.3	34.3	1.5	0.7	9.3
Georgia.....	32	19	1.2	8.7	0.6	1.2	3.1	28.1	35.8	62.1	5.8	0.9	27.8
Florida.....	64	12	1.3	7.1	0.5	1.0	2.2	16.8	21.3	37.8	(D)	0.8	21.0
East South Central....	54	28	3.0	21.2	1.5	3.2	9.4	63.6	71.8	135.3	4.0	(D)	(D)
Kentucky.....	22	16	2.1	15.8	1.0	2.3	7.2	52.7	56.3	108.8	3.8	1.6	34.9
West South Central....	112	47	3.5	24.3	1.9	3.6	10.4	81.6	98.7	179.2	8.4	(D)	(D)
Louisiana.....	14	4	0.3	1.7	0.2	0.3	0.9	4.9	7.1	11.9	(D)	0.2	5.3
Texas.....	79	40	3.0	21.0	1.5	2.9	8.7	71.7	86.0	156.9	7.9	2.6	54.6
Mountain.....	26	8	0.6	3.7	0.3	0.5	1.5	8.0	10.0	18.1	0.2	0.5	5.3
Arizona.....	6	2	0.1	0.8	0.1	0.1	0.3	1.3	1.6	2.9	(Z)	(D)	(D)
Pacific.....	282	100	8.1	62.9	4.5	9.1	30.2	167.0	220.6	389.1	8.1	7.5	136.7
Washington.....	27	10	0.6	4.6	0.4	0.7	2.2	12.1	14.1	26.2	0.6	0.4	7.3
Oregon.....	20	8	0.4	2.6	0.2	0.4	1.2	5.1	8.0	13.0	0.4	0.3	5.0
California.....	235	82	7.2	55.7	4.0	8.0	26.8	149.9	198.5	349.8	7.1	6.7	124.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

(Z) Less than \$50 thousand.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2851- --	PAINTS AND ALLIED PRODUCTS, TOTAL.....	.....	(X)	2,693.4	(X)	2,298.3
28511 --	Exterior oil-type trade sales paint products, total.....	million gals..	<sup>1</sup> 98.7	329.7	<sup>1</sup> 117.0	394.2
28511 11	Oil and alkyd vehicle paints in paste and semipaste form.....	...do.....	7.8	25.1	2.6	9.0
	Oil paints, enamels, and varnishes in ready-mixed form:					
28511 21	Oil and alkyd vehicle house paints and tinting bases.....	...do.....	26.6	95.5	47.3	170.7
28511 22	Sash, trims and trellis enamels and tinting bases.....	...do.....	3.7	15.4	18.0	73.4
28511 24	Porch and deck enamels and tinting bases including interior- exterior floor enamels.....	...do.....	8.1	28.6		
28511 25	Undercoaters and primers.....	...do.....	7.4	26.3		
28511 27	Barn and roof paints (excluding bituminous paints and roof coatings).....	...do.....	3.0	8.5	3.4	9.2
28511 28	Marine paints and enamels (shelf goods).....	...do.....	2.3	9.3	2.7	10.5
28511 31	Metallic paints (aluminum, zinc, bronze, etc.).....	...do.....	4.2	15.0	4.2	13.6
28511 32	Traffic paints (all types, shelf goods and highway depart- ments).....	...do.....	8.7	17.0	9.1	19.9
28511 33	Automotive and machinery refinish paints and enamels, except lacquers.....	...do.....	3.6	17.0	(X)	(NA)
28511 34	Automotive and machinery refinish primers and undercoaters....	...do.....	1.3	4.8	(X)	(NA)
28511 35	Varnish, oleoresinous (synthetic and natural).....	...do.....	4.1	11.5	4.5	12.2
28511 37	Stains (including shingle and shake).....	...do.....	4.6	12.3	4.4	11.6
28511 39	Other exterior oil paints including bituminous paints.....	...do.....	3.3	10.7	5.5	13.0
28511 00	Exterior oil-type trade sales paint products, n.s.k.....	...do.....	(S)	32.7	(S)	13.3
28512 --	Exterior water-type trade sales paint products, including tinting bases, total.....	...do.....	<sup>1</sup> 38.2	129.1	<sup>1</sup> 31.5	82.3
28512 11	All purpose water emulsion paints and tinting bases (excluding exterior-interior water emulsion paints).....	...do.....	27.0	94.7	19.9	67.6
28512 16	Masonry water emulsion paints and tinting bases.....	...do.....	5.5	17.4		
28512 19	Other exterior water-thinned paints, including dry types.....	...do.....	4.1	11.5	6.5	10.2
28512 00	Exterior water-type trade sales paint products, n.s.k.....	...do.....	(S)	5.5	(S)	4.5
28513 --	Interior oil-type trade sales paint products, total.....	...do.....	<sup>1</sup> 74.5	267.6	<sup>1</sup> 91.2	290.6
	Oil paints, enamels, and varnishes in ready-mixed form:					
28513 52	Flat wall paints and tinting bases including semipaste (oil and alkyd vehicle).....	...do.....	16.9	49.2	22.9	66.6
28513 53	Glass and quick drying enamels and tinting bases.....	...do.....	12.2	52.1	34.5	123.1
28513 54	Semigloss paints and tinting bases.....	...do.....	16.1	58.2		
28513 56	Undercoaters and primers.....	...do.....	4.4	14.4		
28513 59	Other interior oil paints and enamels, n.e.c., including mill white paints and interior marine shelf goods.....	...do.....	4.9	17.9	6.0	17.7
	Varnishes:					
28513 65	Varnishes, except shellac varnishes.....	...do.....	5.9	21.7	10.9	30.5
28513 67	Shellac varnish.....	...do.....	1.2	3.0	1.9	4.4
28513 71	Stains.....	...do.....	2.6	9.1	3.0	8.5
28513 81	Aerosol paints made from paint produced and packaged in this establishment or packaged on contract for you.....	...do.....	2.9	15.6	2.6	11.9
28513 00	Interior oil-type trade sales paint products, n.s.k.....	...do.....	(S)	26.4	(S)	5.5
28514 --	Interior water-type trade sales paint products, including tinting bases, total.....	...do.....	<sup>1</sup> 97.0	291.9	<sup>1</sup> 91.1	250.7
28514 11	Flat water emulsion paints and tinting bases.....	...do.....	79.3	246.6	78.8	229.3
28514 21	Semigloss water emulsion paints and tinting bases.....	...do.....	4.9	15.6		
28514 31	All purpose water emulsion paints.....	...do.....	3.6	10.0		
28514 98	Other interior water-thinned paints including paste and semi- paste.....	...do.....	6.2	11.0	10.2	15.9
28514 00	Interior water-type trade sales paint products, n.s.k.....	...do.....	(S)	8.7	(S)	5.5
28515 --	Trade sales lacquers, total.....	...do.....	<sup>1</sup> 9.0	43.5	<sup>1</sup> 14.3	43.8
28515 11	Automotive and machinery refinish lacquers.....	...do.....	4.8	28.1	13.4	40.5
28515 21	Other trade sales lacquers.....	...do.....	3.9	14.2		
28515 00	Trade sales lacquers, n.s.k.....	...do.....	(S)	1.2	(S)	3.3
28516 --	Industrial product finishes, except lacquers, total.....	...do.....	<sup>1</sup> 243.8	716.7	<sup>1</sup> 226.9	624.9
	Industrial maintenance paints:					
28516 11	Interior specially formulated coatings for special conditions in the interior of industrial plants requiring protection against extreme temperatures, fungi, chemicals, fumes, etc.).....	...do.....	13.0	42.8	8.1	25.5

See footnotes at end of table.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
28516 --	Industrial product finishes, except lacquers--Continued					
	Industrial maintenance paints--Continued					
28516 13	Exterior (specially formulated coatings for special conditions in the exterior of industrial plants requiring protection against extreme temperatures, fungi, chemicals, fumes, etc.).	Million gals..	25.3	46.8	23.9	30.3
28516 18	Marine paints, ship bottom, and other specially formulated paints (excluding shelf goods).....	...do.....	8.8	35.2	8.1	27.0
	Transportation (original equipment):					
28516 31	Automobile finishes.....	...do.....	40.7	119.4	<sup>2</sup> 27.5	<sup>2</sup> 97.9
28516 33	Truck and bus finishes.....	...do.....	2.6	8.2	(X)	( <sup>3</sup> )
28516 35	Railroad finishes.....	...do.....	3.3	10.5	(X)	( <sup>3</sup> )
28516 37	Other transportation equipment, including aircraft, rockets, and missiles.....	...do.....	3.3	11.5	(X)	( <sup>3</sup> )
28516 38	Appliance, heating equipment, and air-conditioner finishes....	...do.....	14.6	48.4	(X)	( <sup>3</sup> )
28516 41	Wood furniture and fixture finishes.....	...do.....	12.3	27.1	(X)	( <sup>3</sup> )
28516 42	Wood and composition board flat stock finishes.....	...do.....	7.4	21.6	(X)	( <sup>3</sup> )
28516 44	Sheet, strip, and coil coatings, including sidings (excluding containers).....	...do.....	12.0	41.8	(X)	( <sup>3</sup> )
	Metal decorating:					
28516 45	Container and closure finishes.....	1,000 gals....	24.0	69.3	(X)	( <sup>3</sup> )
28516 46	Other metal decorating.....	...do.....	5.1	17.1	(X)	( <sup>3</sup> )
28516 47	Machinery and equipment finishes (including road building equipment and farm implements) (excluding insulating varnish)	...do.....	12.8	40.3	(X)	( <sup>3</sup> )
28516 48	Metal furniture and fixture finishes.....	...do.....	8.7	27.0	(X)	( <sup>3</sup> )
28516 51	Paper and paperboard, excluding pigment binder.....	...do.....	3.3	7.8	(X)	( <sup>3</sup> )
28516 52	Insulating varnishes, electrical types.....	...do.....	7.3	24.3	(S)	14.8
28516 98	Other industrial product finishes (excluding semimanufactured products such as pigment dispersions and ink vehicles).....	...do.....	25.0	75.5	<sup>3</sup> 147.7	<sup>3</sup> 429.4
28516 00	Industrial product finishes, except lacquers, n.s.k.....	...do.....	(S)	42.1	(S)	16.5
28517 --	Industrial lacquers, including acrylics, total.....	...do.....	66.6	180.5	<sup>1</sup> 70.5	184.2
28517 11	Automotive.....	...do.....	12.0	40.3	10.0	33.5
28517 21	Wood.....	...do.....	28.7	61.6	58.5	145.3
28517 31	Fabricated metal.....	...do.....	9.4	31.7		
28517 41	Paper and paperboard.....	...do.....	2.2	4.9		
28517 98	Industrial lacquers for other end uses.....	...do.....	9.7	29.3	(S)	5.3
28517 00	Industrial lacquers, including acrylics, n.s.k.....	...do.....	(S)	12.7		
28518 --	Putty, caulking compounds and allied products, total.....	...do.....	(X)	165.3	(X)	128.3
28518 11	Wood and textile preservatives (nonpressure type).....	...do.....	(S)	11.3	(S)	9.0
28518 21	Wood fillers and sealers.....	...do.....	(S)	7.2	3.7	10.4
28518 53	Putty and glazing compounds.....	1,000 lbs.....	(S)	7.5	225.3	32.2
28518 57	Caulking and sealant compounds.....	...do.....	(S)	66.8		
28518 63	Paint and varnish removers.....	1,000 gals....	12.6	26.5	10.3	24.0
28518 98	Other allied paint products, including brush cleaners.....	...do.....	11.5	34.5	15.1	42.0
28518 00	Putty, caulking compounds and allied products, n.s.k.....	...do.....	(X)	11.5	(X)	10.7
28519 --	Miscellaneous paint products, total.....	1,000 gals....	(X)	243.1	(X)	190.2
28519 11	Thinners for dopes, lacquers, and oleoresinous thinners, including mixtures and proprietary thinners.....	...do.....	59.4	57.2	53.9	54.1
28519 31	Bleached shellac (not varnish).....	1,000 lbs.....	(S)	1.6	15.2	6.0
28519 41	Aerosol paints made from purchased paint.....	1,000 gals....	3.2	21.2	(NA)	17.5
28519 51	Organosols and plastisols, other than coatings.....	...do.....	(X)	13.4	(X)	102.9
28519 75	Miscellaneous related paint products, e.g., pigment dispersions, ink vehicles, etc.....	1,000 gals....	(X)	140.1		
28519 00	Miscellaneous paint products, n.s.k.....	...do.....	(X)	9.6	(X)	9.7
28510 00	Paints and allied products, n.s.k. (For companies with 10 or more employees. See Note.).....	1,000 gals....	(X)	291.3	(X)	109.1
28510 02	Paints and allied products, n.s.k. (For companies with less than 10 employees. See Note.).....	...do.....	(X)	34.7	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.  
<sup>1</sup>Includes estimated quantities for products listed above for which quantity data were suppressed because reported quantity did not meet publication standards.  
<sup>2</sup>Includes an unspecified amount of trade sale automotive finishes in 1963.  
<sup>3</sup>Data comparable with 1967 not available; included in code 2851698.

## 1967 CENSUS OF MANUFACTURES

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2851.--PAINTS AND ALLIED PRODUCTS					
	Materials, containers, and supplies, total.....	.....	(X)	1,496.6	(X)	1,233.4
	Vegetable Oils:					
209311	Linseed oil (crude or processed).....	Million lbs.....	172.0	25.3	245.1	39.0
209016	All other vegetable oils.....	...do.....	160.3	24.0	177.5	28.2
	Pigments:					
281611	Titanium dioxide, composite and pure.....	...do.....	621.8	154.1	636.1	141.7
281622	Zinc oxide pigments (including leaded zinc oxide).....	...do.....	93.2	14.6	102.4	14.1
281601	Other inorganic pigments.....	.....	(X)	79.3	(X)	60.6
281531	Organic color pigments, lakes and toners.....	.....	(X)	27.7	(X)	23.0
281811	Drivers (napthenic acid salts, rosin acid salts, etc.).....	.....	(X)	9.2	(X)	8.2
281822	Solvents (butyl alcohols, butyl acetate, acetone, etc.).....	.....	(X)	77.3	(X)	63.6
281862	Cellulose esters (nitracellulose, etc.).....	.....	67.1	26.8	(NA)	(NA)
	Plasticizers:					
281836	Diocetyl phthalate.....	Million lbs.....	19.6	3.4	8.8	1.7
281837	Other plasticizers.....	...do.....	40.3	10.3	27.2	7.2
282160	Synthetic resins.....	...do.....	889.1	204.2	865.5	181.9
286102	Tall oil and rosin (gum and wood).....	.....	(X)	9.6	(NA)	(NA)
291105	Petroleum thinners (naphtha).....	...do.....	170.0	37.7	157.0	36.2
	Other chemicals:					
281875	Glycerol (glycerine).....	.....	49.1	11.0	(NA)	(NA)
281876	Pentaerythritol.....	.....	21.0	5.0	(NA)	(NA)
281514	Phthalic anhydride.....	...do.....	112.8	15.8	122.7	14.1
281516	Styrene.....	.....	50.1	5.3	(NA)	(NA)
281827	Vinyl acetate monomer.....	.....	98.5	12.6	(NA)	(NA)
	Containers:					
340001	Metal.....	.....	(X)	118.5	(X)	110.7
260091	Paper and paperboard.....	.....	(X)	19.3	(X)	15.3
970099	All other materials and components parts, containers and supplies consumed.....	.....	(X)	297.2	(X)	250.0
976000	Materials, containers, supplies, n.s.k.....	.....	(X)	<sup>1</sup> 308.4	(X)	<sup>1</sup> 237.8

(NA) Not available. (X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2851, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

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The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

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These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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Washington, D.C. 20233

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POSTAGE AND FEES  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS





# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

**preliminary  
report**

### Gum and wood chemicals

SIC Code 2861

The Gum and Wood Chemicals Industry includes establishments primarily engaged in manufacturing hardwood and softwood distillation products, wood and gum naval stores, charcoal, natural dye-stuffs, and natural tanning materials. Establishments primarily engaged in manufacturing synthetic tanning materials are classified in industry 2818, synthetic dyes in industry 2815, and synthetic organic chemicals in industry 2818.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Gum and Wood Chemicals Industry amounted to \$214.2 million, an increase of 1

percent compared with 1963. Value added by manufacture at \$99.5 million in 1967 was 1 percent less than value added in 1963. Average employment in the industry showed a decrease of 15 percent from 1963 to a total of 5.8 thousand employees in 1967.

Of the \$214.2 million total value of shipments and other receipts of establishments classified in the Gum and Wood Chemicals Industry, \$57.2 million were products primary to other industries; and \$3.8 million were receipts for miscellaneous activities. The industry shipments of primary products represented 73 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 74 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2861--GUM AND WOOD CHEMICALS													
1967 Census....	183	41	5.8	33.2	4.6	9.0	23.1	99.5	114.8	214.2	20.6	46.1	73	76
1966 ASM <sup>1</sup> .....	(NA)	(NA)	5.0	31.5	3.8	7.9	21.4	99.2	109.6	208.7	*6.6	43.5	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	5.8	32.1	4.3	8.8	21.9	92.6	112.3	206.2	4.4	46.4	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	6.4	32.4	5.0	10.1	22.4	102.3	116.9	222.0	4.9	48.9	(NA)	(NA)
1963 Census....	246	53	6.8	32.7	5.4	10.8	22.9	100.3	114.6	212.8	5.6	53.7	74	77
1962 ASM <sup>1</sup> .....	(NA)	(NA)	6.2	29.6	4.9	10.8	20.4	100.5	100.5	199.6	*5.2	49.0	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	6.7	31.3	5.3	11.4	21.8	99.1	107.5	201.0	7.0	49.4	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	6.8	32.1	5.6	12.3	22.9	99.5	112.9	208.3	9.3	44.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	7.1	31.4	5.8	12.2	22.7	93.9	111.3	202.4	*16.4	36.7	(NA)	(NA)
1958 Census <sup>2</sup> ...	190	41	7.3	30.1	5.9	11.6	21.8	85.3	99.3	182.2	4.9	31.3	71	86

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS**

The total value of gum and wood chemicals shipped by all producers in 1967 was \$202.4 million of which \$153.2 million, or 76 percent, were shipped by plants classified in industry 2861, Gum and Wood Chemicals, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 77 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2861.—GUM AND WOOD CHEMICALS												
United States, total.....	183	41	5.8	33.2	4.6	9.0	23.1	99.5	114.8	214.2	20.6	6.8	100.3
Middle Atlantic.....	27	5	0.3	1.8	0.2	0.5	1.2	2.7	4.7	7.5	(D)	(D)	(D)
New York.....	13	2	0.1	0.8	0.1	0.3	0.6	1.4	2.4	3.9	0.2	0.1	1.0
East North Central...	16	3	0.5	2.5	0.4	0.9	1.9	3.3	4.1	7.3	(D)	0.5	4.0
West North Central...	33	4	0.4	1.8	0.4	0.8	1.4	5.6	7.0	12.7	(D)	0.4	3.3
South Atlantic.....	38	13	2.3	14.7	1.7	3.3	9.7	49.7	54.2	103.4	(D)	2.6	51.4
East South Central...	25	9	1.5	8.3	1.1	2.2	5.7	27.5	31.3	59.0	(D)	1.9	24.8
West South Central...	28	5	0.7	3.6	0.6	1.1	2.6	8.9	11.1	20.3	0.6	1.0	12.6
Texas.....	16	2	0.2	0.7	0.2	0.3	0.5	1.5	1.5	3.0	0.2	0.1	0.8

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
2861- --	GUM AND WOOD CHEMICALS, TOTAL.....		(X)	(X)	202.4	(X)	(X)	197.0
28611 --	Softwood distillation products, total.....		(X)	(X)	82.1	(X)	(X)	82.4
28611 13	Wood turpentine <sup>1 2</sup> .....	Million lbs.	82.8	67.3	6.4	60.8	46.3	2.0
28611 23	Pine oil.....	do.	72.0	72.6	10.2	64.8	64.7	8.4
28611 31	Wood rosin <sup>2</sup> .....	do.	547.5	481.8	44.6	570.4	324.5	30.2
28611 31	Other derivatives of softwood distillation, including pine tar, pine tar oil, charcoal, and charcoal briquettes.....		}	(X)	20.9	{	(X)	41.0
28611 00	Softwood distillation products, n.s.k.....						(X)	0.8
28612 --	Other gum and wood chemicals, total.....		(X)	(X)	111.3	(X)	(X)	111.4
	Gum naval stores.....		(X)	(X)	9.9	(X)	(X)	17.5
28612 11	Gum turpentine.....	1,000 bbls. of 50 gals.	(S)	(S)	1.3	136.0	127.0	2.0
28612 21	Rosin.....	1,000 drums of 517 lbs.	181.8	169.1	8.6	329	272	15.4
	Hardwood distillation products.....		(X)	(X)	32.9	(X)	(X)	34.5
28612 52	Charcoal, excluding briquettes.....	1,000 short tons.....	}	384.7	372.9	{	74.8	69.0
	Charcoal briquettes:							
28612 54	Made from charcoal produced in this plant.....	do.....					129.2	128.6
28612 58	Made from charcoal purchased or shipped from other plants.....	do.....					175.3	165.7
28612 61	Other derivatives of hardwood distillation including natural acetic acid and methanol <sup>3</sup> .....		(X)	(X)	(D)	(X)	(X)	6.0
28612 71	Natural dyestuffs extracts, including logwood, etc.....		(X)	(X)	(D)	(S)	(S)	1.8
28612 81	Natural tanning materials.....		(S)	(S)	4.5	(S)	(S)	5.2
28612 85	Chrome tanning mixtures.....		(X)	(X)	(D)	(S)	(S)	0.6
	Tall oils.....		(X)	(X)	63.6	(X)	(X)	50.7
28612 91	Crude.....	Million lbs.	1,106.5	831.0	25.7	988.2	659.0	24.0
28612 94	Refined (containing less than 90 percent free fatty acids, including tall oil resins other than tall oil rosins) <sup>4</sup> .....	do.....	300.8	252.5	18.3	88.4	83.2	6.2
28612 96	Rosin.....	do.....	267.3	257.8	19.6	384.8	250.1	20.5
28612 00	Other gum and wood chemicals, n.s.k.....		(X)	(X)	(Z)	(X)	(X)	1.1
28610 00	Gum and wood chemicals, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	(X)	3.1	{	(X)	3.2
28610 02	Gum and wood chemicals, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	(X)	5.8		(X)	

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

(X) Not applicable. (Z) less than 0.1 when rounded.

<sup>1</sup>Excludes data for sulfate wood turpentine.

<sup>2</sup>Excludes pinene reported as such.

<sup>3</sup>Excludes data for synthetic acetic acid and synthetic methanol for which data are compiled by the U.S. Tariff Commission.

<sup>4</sup>Data for refined tall oil fatty acids containing 90 percent or more free fatty acids, excluding resin acids, are reported in industry 2899, Chemical Preparations, N.E.C.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2861, these small establishments accounted for approximately 3 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

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the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

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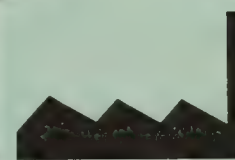
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28F-1

## INDUSTRY SERIES

**preliminary  
report**

### Fertilizers

SIC Code 2871

The Fertilizers Industry includes establishments primarily engaged in manufacturing mixed fertilizers (mixtures containing nitrogen, phosphoric acid ( $P_2O_5$ ) or potash), from one or more fertilizer materials produced in the same establishments. Sulfuric, phosphoric, and nitric acid plants operated in conjunction with fertilizer plants and separately reported are classified in industry 2819. When separate reports are not available these acid plants are classified in this industry. Establishments engaged in manufacturing urea are classified in industry 2818.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Fertilizers Industry amounted to \$1,198.5 million, an increase of 38 percent compared with 1963. Value added by manufacture at \$440.9 million in 1967 was 53 percent more than value added in 1963. Average employment in the industry showed an increase of 4 percent from 1963 to a total of 20.8 thousand employees in 1967.

Of the \$1,198.5 million total value of shipments and other receipts of establishments classified as fertilizers, \$164.6 million were products primary to other industries; and \$103.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 85 percent of the total manufactured

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2871. --FERTILIZERS													
1967 Census....	204	180	20.8	129.4	15.2	32.2	86.4	440.9	782.0	1,198.5	132.8	240.9	85	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	21.8	125.1	15.9	33.6	85.8	417.7	783.5	1,167.0	87.5	232.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	20.7	113.8	15.2	32.0	77.2	375.9	705.2	1,057.5	157.5	191.1	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	20.8	109.9	15.4	32.9	74.9	343.2	661.3	995.9	*82.1	169.9	(NA)	(NA)
1963 Census....	281	199	20.0	102.3	14.8	31.9	70.8	287.8	583.6	869.2	45.5	148.9	89	97
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ...	283	205	18.7	79.0	14.1	29.0	55.3	197.9	406.2	605.2	24.3	98.7	(NA)	(NA)

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary

**Rocco C. Siciliano**, Under Secretary

**Harold C. Passer**, Assistant Secretary for Economic Affairs

**BUREAU OF THE CENSUS** George Hay Brown, Director

product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 89 percent in 1963.

The total value of fertilizers shipped by all producers in 1967 was \$975.6 million of which \$930.3 million, or 95 percent, were shipped by plants classified in industry 2871, Fertilizers, while the remainder was shipped by plants

classified in other industries. This percent, called the coverage ratio, was 97 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

### COMPARABILITY OF THE CENSUS OF MANUFACTURES AND CURRENT INDUSTRIAL REPORTS DATA

For industry 2871, the Census Bureau collects current statistics on selected products. These data appear in the Current Industrial Reports series:

#### M28B, Inorganic Fertilizer Materials and Related Acids

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)	
	INDUSTRY 2871.--FERTILIZERS												
United States, total.....	204	180	20.8	129.4	15.2	32.2	86.4	440.9	782.0	1,198.5	132.8	20.0	287.8
Middle Atlantic.....	7	5	0.7	3.6	0.4	0.8	2.5	7.3	12.4	19.5	0.4	0.9	8.9
North Central.....	57	49	4.0	24.1	2.8	5.6	15.3	58.2	187.4	242.2	15.9	4.3	57.0
Ohio.....	13	12	0.9	5.3	0.7	1.4	3.5	14.8	37.2	52.1	0.7	1.1	13.3
Indiana.....	7	7	0.4	1.9	0.3	0.6	1.5	5.4	17.4	22.7	0.5	0.4	4.1
Michigan.....	4	3	0.3	1.6	0.2	0.3	0.9	4.6	13.0	18.1	0.4	0.3	4.5
Iowa.....	5	5	0.4	2.6	0.3	0.6	1.8	9.8	17.7	27.2	0.2	(D)	(D)
South Atlantic.....	67	64	10.0	60.2	7.5	16.1	41.6	225.4	349.0	554.5	41.8	8.7	110.0
Maryland.....	4	4	0.5	2.8	0.3	0.7	2.1	7.5	13.9	20.4	0.8	(D)	(D)
Virginia.....	8	8	0.9	4.5	0.7	1.5	3.3	15.1	19.6	31.6	0.9	0.9	7.9
North Carolina.....	11	10	0.9	4.1	0.6	1.1	2.3	9.3	28.0	37.2	(D)	0.8	9.5
South Carolina.....	8	7	0.6	3.1	0.5	1.1	2.2	8.3	19.2	26.6	0.9	(D)	(D)
Georgia.....	17	16	1.2	6.0	1.0	2.0	3.8	13.5	41.5	53.6	1.6	1.2	9.7
Florida.....	19	19	5.9	39.7	4.4	9.6	27.9	171.7	226.9	385.1	(D)	4.6	72.1
East South Central....	31	29	2.3	13.0	1.9	4.1	9.3	67.9	83.4	149.7	4.1	2.5	46.3
West South Central....	25	19	2.1	15.2	1.5	3.1	10.0	53.9	84.7	135.6	61.0	1.8	39.3
Texas.....	12	8	1.3	10.0	1.0	2.0	7.0	42.0	47.8	89.1	(D)	1.1	33.1
West.....	16	13	1.7	13.0	1.1	2.3	7.5	28.0	63.7	95.3	9.6	1.4	24.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Production for all purposes (1,000 short tons)	Total shipments, including interplant transfers		Production for all purposes (1,000 short tons)	Total shipments, including interplant transfers	
			Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)
2871- --	FERTILIZERS, TOTAL.....	(X)	(X)	975.6	(X)	(X)	727.9
28711 --	Superphosphate and other phosphatic fertilizer materials, total <sup>1</sup> ...	(X)	(X)	550.6	(X)	(X)	321.5
	Superphosphate:						
28711 15	Normal and enriched (less than 42% P <sub>2</sub> O <sub>5</sub> ) (basis 100% P <sub>2</sub> O <sub>5</sub> )....	(S)	(S)	55.9	1,186.0	624.0	58.2
28711 41	Triple (40% or more P <sub>2</sub> O <sub>5</sub> ) (basis 100% P <sub>2</sub> O <sub>5</sub> ).....	(S)	(S)	144.2	<sup>2</sup> 1,116.5	1,138.0	105.3
28711 51	Ammonium phosphates (chemically processed nitrogenphosphorus materials comprising liquid and solid fertilizer grades of monoammonium and diammonium phosphates and their processed combinations with ammonium sulphate) (basis 100% P <sub>2</sub> O <sub>5</sub> ).....	(S)	(S)	276.5	<sup>3</sup> 745.8	663.9	108.1
28711 61	Other phosphatic fertilizer materials (chemically processed materials such as ammonium phosphate potash mixtures, nitrophosphates, calcium metaphosphates, sodium phosphates, wetbase goods, etc.) (basis 100% P <sub>2</sub> O <sub>5</sub> ).....	(S)	(S)	65.8	<sup>4</sup> 165.0	113.2	31.7
28711 71	Defluorinated superphosphate and phosphate rock (feed grade) (100% P).....	16.8	16.8	6.3	49.3	50.1	18.2
28711 00	Superphosphate and other phosphatic fertilizers, n.e.c.....	(X)	(X)	1.9	(X)	(X)	-
28712 --	Mixed fertilizers (from phosphatic fertilizer materials produced in same establishment and fertilizer materials of organic origin), total.....	(X)	(X)	421.0	(X)	(X)	406.4
	Complete mixtures--grades guaranteeing N, P <sub>2</sub> O <sub>5</sub> , and K <sub>2</sub> O (excluding ammonium phosphate potash mixture chemically processed in same establishment):						
28712 13	Shipped in dry form.....	6,273.6	6,323.0	349.3	6,571.7	6,436.6	335.8
28712 17	Shipped in liquid form.....	105.9	121.3	6.1	84.3	84.8	6.1
	Incomplete mixtures, including dry and liquid forms:						
28712 25	Grades guaranteeing N and P <sub>2</sub> O <sub>5</sub> only including ammoniated superphosphates (including ammonium phosphates chemically processed in same establishment).....	263.3	210.4	14.7	251.8	210.2	13.8
28712 31	Grades guaranteeing P <sub>2</sub> O <sub>5</sub> and K <sub>2</sub> O only.....	496.3	483.4	23.4	372.4	348.4	17.1
28712 51	Grades guaranteeing N and K <sub>2</sub> O only.....	48.8	46.4	2.4	63.0	63.2	3.8
28712 78	Grades guaranteeing N <sub>1</sub> P <sub>2</sub> O <sub>5</sub> or K <sub>2</sub> O only.....	178.8	170.8	7.6	56.2	56.3	2.5
28712 85	Fertilizer materials of organic origin (includes activated sewage sludge, processed tankage and other natural fertilizer materials).....	303.2	308.7	10.3	337.4	321.1	11.8
28712 00	Mixed fertilizers, complete and incomplete, and fertilizer materials of organic origin, n.s.k.....	(X)	(X)	7.2	(X)	(X)	15.4
28710 00	Fertilizers, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	4.0	(X)	(X)	-
28710 02	Fertilizers, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	(X)	-	(X)	(X)	(X)

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>For quantity data showing production, shipments, plant consumption and stocks published on a monthly basis for intercensal years and 1967 for product codes 28711 15, 28711 41, 28711 51, and 28711 61, see Current Industrial Reports Series M28D, Superphosphate and Other Phosphatic Fertilizer Materials.

<sup>2</sup>Production data include 18,696 short tons of P<sub>2</sub>O<sub>5</sub> for 1963 reported by Tennessee Valley Authority.

<sup>3</sup>Production data include 32,702 short tons of P<sub>2</sub>O<sub>5</sub> for 1963 reported by Tennessee Valley Authority.

<sup>4</sup>Production data include 41,812 short tons of P<sub>2</sub>O<sub>5</sub> for 1963 reported by Tennessee Valley Authority.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967		1963	
				Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2871.--FERTILIZERS						
	Materials, containers, and supplies, total...			(X)	672.8	(X)	491.1
	Nitrogenous materials:						
281912	Ammonia, synthetic, anhydrous.....	100% NH <sub>3</sub> .....	1,000 short tons..	865.3	49.4	450.6	32.3
281913	Ammoniating or nitrogen solutions including mixtures containing urea.....	100% N.....	...do.....	(S)	27.4	236.4	31.3
281914	Ammonium nitrate.....	100% NH <sub>4</sub> NO <sub>3</sub> .....	...do.....	(X)	( <sup>1</sup> )	48.6	3.2
281975	Sodium nitrate.....	100% NaNO <sub>3</sub> .....	...do.....	(X)	( <sup>1</sup> )	19.6	0.8
281915	Ammonium sulfate.....	100% (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> .....	...do.....	(S)	7.3	282.9	8.8
281826	Urea and calurea.....	100% N.....	...do.....	(X)	( <sup>1</sup> )	8.1	1.5
281916	Other chemical nitrogenous materials, including potassium, nitrate, calcium, cyanamide and ammonium nitrate limestone mixtures.....		...do.....	(S)	4.8	63.3	2.7
200011	Organic ammoniates.....		...do.....	(X)	( <sup>1</sup> )	77.1	3.3
	Phosphatic materials:						
287111	Super phosphate, used in mixed goods normal and enriched (less than 40% P <sub>2</sub> O <sub>5</sub> ).....	100% P <sub>2</sub> O <sub>5</sub> .....	...do.....	<sup>2</sup> (S)	6.3	46.8	3.9
287114	Concentrated (40% P <sub>2</sub> O <sub>5</sub> and over).....	100% P <sub>2</sub> O <sub>5</sub> .....	...do.....	<sup>3</sup> (S)	31.6	231.9	26.3
287116	Other phosphatic materials, including wet base goods, ammonium phosphates, etc.....	100% P <sub>2</sub> O <sub>5</sub> .....	...do.....	(S)	16.9	65.7	8.6
	Potassic materials:						
147401	Muriate of potash, include all grades converted to 60-62% K <sub>2</sub> O basis.....	K <sub>2</sub> O 60-62%.....	...do.....	1,750.6	61.0	1,482.2	55.9
147402	Other potash bearing materials (potassium sulfate).....		...do.....	154.8	6.8	160.4	7.3
999821	Inert fillers, secondary plant food and soil conditioners, including sand, peat.....		...do.....	735.9	6.0	650.8	5.1
	Sulfuric acid:						
281931	Sulfuric acid, except spent.....	100% H <sub>2</sub> SO <sub>4</sub> .....	...do.....	<sup>4</sup> 2,409.9	38.8	1,627.3	23.9
281933	Spent sulfuric acid.....	100% H <sub>2</sub> SO <sub>4</sub> .....	...do.....	943.4	11.6	602.3	7.6
147501	Phosphate rock.....		1,000 long tons...	12,363.7	115.1	9,655.2	94.7
281948	Phosphoric acid.....	100% P <sub>2</sub> O <sub>5</sub> .....	1,000 short tons..	<sup>5</sup> (S)	46.9	211.4	26.0
147701	Sulfur.....		1,000 long tons..	2,936.5	106.9	1,802.9	45.0
	Containers:						
239300	Textile.....			(X)	( <sup>1</sup> )	(X)	1.0
264302	Bags, except textile (including shipping sacks).			(X)	13.1	(X)	19.9
	All other materials and components:						
970099	Parts, containers, and supplies consumed.....			(X)	<sup>1</sup> 76.0	(X)	45.8
976000	Materials, containers, supplies, n.s.k.....			(X)	<sup>6</sup> 46.9	(X)	36.4

n.s.k. Not specified by kind. (X) Not applicable. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

<sup>1</sup>Code 281914, code 281975, code 281826, code 200011, and code 239300 combined with code 970099 for 1967.

<sup>2</sup>617.8 thousand short tons (100% P<sub>2</sub>O<sub>5</sub>) of normal and enriched superphosphate were consumed by producing plants.

<sup>3</sup>136.6 thousand short tons (100% P<sub>2</sub>O<sub>5</sub>) of concentrated superphosphate were consumed by producing plants.

<sup>4</sup>9,240.8 thousand short tons (100% H<sub>2</sub>SO<sub>4</sub>) of sulfuric acid, except spent, were produced and consumed by plants classified in Industry 2871, Fertilizers.

<sup>5</sup>2,701.6 thousand short tons (100% P<sub>2</sub>O<sub>5</sub>) of phosphoric acid, were produced and consumed by plants classified in Industry 2871, Fertilizers.

<sup>6</sup>Standard materials footnote.



### SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2871, these small establishments accounted for approximately 0.0 percent of payrolls and 0.0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

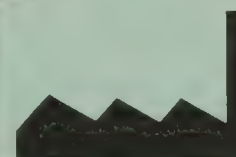
**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.



# 1967 CENSUS OF MANUFACTURES



MC67(P)-28F-2

## INDUSTRY SERIES

### Fertilizers, mixing only

SIC Code 2872

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preliminary
report
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The Fertilizers, Mixing Only, Industry includes establishments primarily engaged in mixing fertilizers from purchased fertilizer materials.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Fertilizers, Mixing Only, Industry amounted to \$723.3 million, an increase of 16 percent compared with 1963. Value added by manufacture at \$195.0 million in 1967 was 19

percent more than value added in 1963. Average employment in the industry showed a decrease of 2 percent from 1963 to a total of 13.5 thousand employees in 1967.

Of the \$723.3 million total value of shipments and other receipts of establishments classified as fertilizers, mixing only, \$42.3 million were products primary to other industries; and \$135.6 million were receipts for miscellaneous activities. The industry shipments of primary products represented 93 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 94 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll (million dollars)	Number	Man-hours (millions)	Wages (million dollars)							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2872.--FERTILIZERS, MIXING ONLY													
1967 Census....	728	212	13.5	70.7	9.0	18.0	37.7	195.0	528.3	723.3	18.2	129.7	93	97
1966 ASM <sup>1</sup> .....	(NA)	(NA)	14.5	67.7	9.8	19.3	37.9	213.6	531.1	734.9	16.6	135.2	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	14.2	63.8	9.7	19.0	35.4	195.4	503.7	690.1	16.0	124.2	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	13.8	62.2	9.1	18.2	33.9	188.5	489.1	668.2	16.8	116.7	(NA)	(NA)
1963 Census....	733	232	13.8	59.4	9.3	18.7	33.7	164.1	459.2	623.1	12.0	108.2	94	96
1962 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 Census <sup>2</sup> ...	685	202	12.2	43.6	8.3	15.9	25.6	105.8	333.3	438.6	8.7	71.0	(NA)	(NA)

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 2, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued November 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary

Rocco C. Siciliano, Under Secretary

Harold C. Passer, Assistant Secretary for Economic Affairs

BUREAU OF THE CENSUS George Hay Brown, Director

The total value of fertilizers, mixing only, shipped by all producers in 1967 was \$563.7 million of which \$545.4 million, or 97 percent, were shipped by plants classified in industry 2872, Fertilizers, Mixing Only, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 96 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2872.--FERTILIZERS, MIXING ONLY												
United States, total.....	728	212	13.5	70.7	9.0	18.0	37.7	195.0	528.3	723.3	18.2	13.8	164.1
New England.....	26	6	0.4	1.9	0.3	0.6	1.2	3.8	14.1	18.8	(D)	(D)	(D)
Connecticut.....	7	1	0.1	0.5	0.1	0.2	0.4	0.6	2.9	4.1	(D)	(D)	(D)
Middle Atlantic.....	83	23	1.1	5.7	0.9	1.8	3.8	15.1	43.7	59.5	(D)	(D)	(D)
New York.....	27	8	0.3	1.4	0.2	0.5	1.0	4.2	14.4	19.0	0.4	0.3	4.2
New Jersey.....	13	5	0.2	1.1	0.2	0.3	0.6	2.6	8.8	11.6	0.2	(D)	(D)
Pennsylvania.....	43	10	0.6	3.1	0.5	1.0	2.1	8.3	20.5	28.9	1.0	0.4	4.3
East North Central...	156	45	3.2	18.7	2.0	4.0	9.8	66.5	140.9	204.1	4.6	2.6	41.2
Ohio.....	43	15	1.1	5.9	0.7	1.4	3.5	32.8	40.7	72.3	1.0	0.9	18.8
Indiana.....	35	12	0.8	4.2	0.4	0.9	2.0	10.2	37.8	47.6	1.4	(D)	(D)
Illinois.....	36	7	0.8	4.8	0.4	0.9	2.3	12.8	35.5	47.1	1.1	0.4	6.6
Michigan.....	19	5	0.3	2.0	0.2	0.4	1.0	6.1	14.4	19.8	0.4	(D)	(D)
Wisconsin.....	23	6	0.3	1.8	0.2	0.4	1.0	4.6	12.6	17.2	0.7	0.3	3.1
West North Central...	85	18	1.1	6.3	0.7	1.4	3.3	16.7	61.4	79.5	2.2	1.5	19.0
Minnesota.....	21	6	0.3	2.1	0.2	0.3	1.0	8.5	21.6	29.6	(D)	0.5	5.1
Iowa.....	27	7	0.4	2.6	0.3	0.6	1.3	5.9	24.2	31.1	0.8	0.6	8.8
Missouri.....	17	3	0.2	0.8	0.1	0.3	0.6	1.4	7.3	8.8	0.1	0.1	2.3
South Atlantic.....	202	86	4.8	23.4	3.4	6.8	13.1	57.8	163.8	222.0	(D)	5.4	52.7
North Carolina.....	34	13	0.8	3.1	0.6	1.1	1.9	7.9	26.7	34.6	(D)	1.0	10.2
South Carolina.....	17	3	0.4	1.3	0.3	0.6	0.9	5.4	10.1	16.5	0.2	0.5	5.7
Georgia.....	46	12	0.7	2.8	0.5	1.0	1.6	5.7	19.7	25.6	1.6	1.0	6.1
Florida.....	61	34	1.7	9.7	1.1	2.4	4.8	23.0	62.5	85.3	(D)	1.3	14.1
East South Central...	55	15	0.9	4.1	0.6	1.3	2.4	10.4	36.8	48.2	1.2	1.1	10.6
Kentucky.....	19	6	0.3	1.5	0.2	0.4	0.8	3.2	13.2	16.9	0.4	0.4	4.1
Alabama.....	23	6	0.4	1.7	0.3	0.6	1.0	3.7	12.5	16.4	(D)	0.5	3.0
West South Central...	51	12	0.8	3.8	0.5	0.9	1.8	11.9	32.8	44.4	0.6	0.6	5.8
Texas.....	33	12	0.7	3.5	0.4	0.8	1.6	11.4	28.9	39.7	0.6	0.4	4.2
West.....	70	7	1.0	6.7	0.6	1.1	2.3	12.8	34.8	46.8	0.7	1.3	19.6

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	1967			1963		
		Production for all purposes (1,000 short tons)	Total shipments, including interplant transfers		Production for all purposes (1,000 short tons)	Total shipments, including interplant transfers	
			Quantity (1,000 short tons)	Value (million dollars)		Quantity (1,000 short tons)	Value (million dollars)
2872- --	FERTILIZERS, MIXING ONLY, TOTAL.....	(X)	(X)	563.7	(X)	(X)	492.7
28722 --	Fertilizers, mixing only, total.....	(X)	(X)	563.7	(X)	(X)	492.7
28722 13	Complete mixtures--grades guaranteeing N, P <sub>2</sub> O <sub>5</sub> , and K <sub>2</sub> O: Shipped in dry form.....	6,918.2	6,882.5	373.5	6,830.6	6,725.6	354.6
28722 17	Shipped in liquid form.....	638.2	642.3	32.1	283.5	287.7	15.8
28722 25	Incomplete mixtures, including dry and liquid forms: Grades guaranteeing N and P <sub>2</sub> O <sub>5</sub> only, including ammoniated superphosphates.....	178.8	173.8	13.1	311.0	308.8	21.3
28722 31	Grades guaranteeing P <sub>2</sub> O <sub>5</sub> and K <sub>2</sub> O only.....	256.5	247.3	12.8	437.4	423.9	20.4
28722 51	Grades guaranteeing N and K <sub>2</sub> O only.....	151.8	151.0	8.6	159.6	160.2	8.2
28722 78	Grades guaranteeing N or K <sub>2</sub> O only.....	338.3	333.5	18.1	153.5	162.9	7.2
28722 00	Fertilizers, mixing only, n.s.k. (For companies with 10 or more employees. See Note.).....	(X)	(X)	88.7	(X)	(X)	65.2
28722 02	Fertilizers, mixing only, n.s.k. (For companies with less than 10 employees. See Note.).....	(X)	(X)	16.8			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	1967		1963	
				Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2872.--FERTILIZERS, MIXING ONLY						
	Materials, containers, and supplies, total.			(X)	416.2	(X)	355.2
	Nitrogenous materials:						
281912	Ammonia, synthetic, anhydrous.....	100% NH <sub>3</sub> .....	1,000 short tons.	142.7	11.0	101.7	9.2
281913	Ammoniating, or nitrogen solution including mixtures containing urea.....	100% N.....	...do.....	(S)	27.8	232.8	30.5
281914	Ammonium nitrate.....	100% NH <sub>4</sub> NO <sub>3</sub> .....	...do.....	160.9	10.8	111.6	7.8
281975	Sodium nitrate.....	100% NaNO <sub>3</sub> .....	...do.....	(S)	( <sup>1</sup> )	40.5	2.0
281915	Ammonium sulfate.....	100% (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> .....	...do.....	316.7	11.4	352.9	11.9
281826	Urea and calurea.....	100% N.....	...do.....	88.1	8.9	27.0	4.8
281916	Other chemicals nitrogenous materials, including potassium nitrate, calcium cyanamide, ammonium nitrate and limestone mixtures.....	...do.....	...do.....	(S)	5.1	89.5	3.9
200011	Organic ammoniates.....	...do.....	...do.....	145.8	6.2	153.0	6.2
	Phosphatic materials:						
287111	Super phosphate (less than 40% P <sub>2</sub> O <sub>5</sub> ).....	100% P <sub>2</sub> O <sub>5</sub> .....	...do.....	(S)	33.2	413.9	41.4
287114	Concentrated (40% P <sub>2</sub> O <sub>5</sub> and over).....	100% P <sub>2</sub> O <sub>5</sub> .....	...do.....	(S)	27.0	225.8	27.1
287116	Other phosphatic materials, including wet base goods, ammonium phosphates, etc.....	100% P <sub>2</sub> O <sub>5</sub> .....	...do.....	(S)	20.7	70.4	12.2
	Potassic materials:						
147401	Muriate of potash.....	K <sub>2</sub> O 60-62%.....	...do.....	1,184.6	44.5	1,221.3	48.0
147402	Other potash bearing materials.....	...do.....	...do.....	196.6	8.5	180.6	7.9
999821	Inert fillers, secondary plant food, and soil conditioners including sand, limestone, peat, nut hulls, citrus meals.....	...do.....	...do.....	792.3	9.0	746.0	6.6
281931	Sulfuric acid, except spent acid.....	100% H <sub>2</sub> SO <sub>4</sub> .....	...do.....	196.7	4.5	158.7	3.2
147501	Phosphate rock.....	1,000 long tons..	(S)	( <sup>1</sup> )	78.3	0.8	
281948	Phosphoric acid.....	100% P <sub>2</sub> O <sub>5</sub> .....	1,000 short tons.	132.6	14.6	75.3	10.8
264302	Bags, except textile (including shipping sacks, multiwall bags, and polyethylene liners).....	...do.....	...do.....	(X)	13.7	(X)	13.4
970099	All other materials and components, parts, containers and supplies consumed.....	...do.....	...do.....	(X)	<sup>1</sup> 57.2	(X)	33.7
976000	Materials, containers, supplies, n.s.k.....	...do.....	...do.....	(X)	<sup>2</sup> 102.1	(X)	<sup>2</sup> 74.0

n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>Code 281975 and code 147501 combined with code 970099 for 1967.

<sup>2</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2872, these small establishments accounted for approximately 3 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
Washington, D.C. 20233

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE

OFFICIAL BUSINESS



# 1967 CENSUS OF MANUFACTURES

MC67(P)-28F-3

INDUSTRY SERIES

preliminary  
report

## Agricultural chemicals, n.e.c.

SIC Code 2879

The Agricultural Pesticides, and Other Agricultural Chemicals, N.E.C., Industry includes establishments primarily engaged in the formulation and preparation of ready-to-use agricultural pest control chemicals, including insecticides, fungicides, and herbicides from technical chemicals or concentrates; and the production of concentrates which require further processing before use as agricultural pesticides. This industry also includes establishments primarily engaged in manufacturing or formulating agricultural chemicals, not elsewhere classified, such as minor or trace elements and soil conditioners. Establishments primarily engaged in manufacturing basic or technical agricultural pest control chemicals including insecticides, fungicides, and herbicides such as lead and calcium arsenates, copper sulfate, DDT, BHC, 2, 4-D carbomates,

etc., are classified in Group 281. Establishments primarily engaged in manufacturing household or industrial pesticides are classified in industry 2842, and agricultural lime products in Major group 32.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Agricultural Chemicals, N.E.C., Industry amounted to \$1,180.2 million, an increase of 247.6 percent compared with 1963. Value added by manufacture at \$609.5 million in 1967 was 345.7 percent more than value added in 1963. Average

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2879.—AGRICULTURAL CHEMICALS, N.E.C.													
1967 Census....	349	119	19.1	148.8	12.2	23.9	81.4	609.5	594.0	1,180.2	72.9	202.7	86	68
1966 ASM <sup>1</sup> .....	(NA)	(NA)	11.0	72.8	6.2	12.1	32.5	277.6	425.2	692.7	25.4	137.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	10.2	60.5	5.9	11.0	28.5	229.3	351.4	588.3	19.0	110.7	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	9.0	52.8	5.2	10.8	24.1	181.5	302.6	478.6	12.4	96.5	(NA)	(NA)
1963 Census....	340	112	9.1	51.5	5.3	10.6	24.4	176.3	307.0	476.7	9.1	93.3	87	69
1962 ASM <sup>1</sup> .....	(NA)	(NA)	8.7	46.3	5.1	10.2	20.9	146.4	292.7	431.7	7.5	76.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	8.4	43.6	5.1	10.1	20.2	137.2	275.8	406.7	5.6	70.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	8.9	45.0	5.3	10.1	20.0	142.4	262.8	398.0	7.8	68.1	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	8.5	41.2	5.1	9.5	19.2	127.5	243.2	364.1	7.9	65.2	(NA)	(NA)
1958 Census <sup>2</sup> ...	337	101	7.8	37.8	4.9	9.5	18.6	111.0	223.2	333.1	7.0	62.5	90	74

(NA) Not available. n.e.c. Not elsewhere classified.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 3 and 4, respectively. The standard errors of the 1967/1966 relatives will be approximately the same. Sampling errors for the other ASM years appear in the ASM publications for those years.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents



U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
William H. Chartener, Assistant Secretary for Economic Affairs  
BUREAU OF THE CENSUS A. Ross Eckler, Director

employment in the industry showed an increase of 209.9 percent from 1963 to a total of 19.1 thousand employees in 1967.

Of the \$1,180.2 million total value of shipments and other receipts of establishments classified as agricultural chemicals, n.e.c., \$337.4 million were products primary to other industries; and \$124.0 million were receipts for miscellaneous activities. The industry shipments of primary products represented 68 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 87 percent in 1963.

The total value of agricultural chemicals, n.e.c., shipped by all producers in 1967 was \$833.4 million of which \$718.8 million, or 86 percent, were shipped by plants classified in industry 2879, Agricultural Chemicals, N.E.C., while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 69 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)						
INDUSTRY 2879.—AGRICULTURAL CHEMICALS, N.E.C.													
United States, total.....	349	119	19.1	148.8	12.2	23.9	81.4	609.5	594.0	1,180.2	72.9	9.1	176.3
New England.....	7	3	0.1	0.5	0.1	0.1	0.3	1.2	5.2	6.4	(D)	(D)	(D)
Middle Atlantic.....	36	22	4.8	39.2	2.6	5.1	17.8	115.6	119.4	228.7	7.8	(D)	(D)
North Central.....	74	21	7.0	60.6	4.9	9.5	38.3	246.5	191.9	434.4	22.7	1.7	54.2
Ohio.....	10	1	0.1	0.5	0.1	0.2	1.8	4.2	5.8	0.1	0.1	1.3	
Iowa.....	9	2	0.1	1.2	0.1	0.2	1.0	4.7	15.2	19.1	0.1	(D)	(D)
South Atlantic.....	64	25	1.6	8.3	1.0	1.9	4.0	26.5	57.2	83.3	0.9	1.7	19.2
North Carolina.....	14	4	0.2	1.0	0.1	0.2	0.3	2.7	7.7	10.2	(D)	0.2	3.1
South Carolina.....	6	3	0.1	0.7	0.1	0.1	0.3	2.5	6.8	8.9	0.1	(D)	(D)
Georgia.....	17	3	0.5	2.5	0.4	0.6	1.2	6.6	14.9	21.6	0.3	0.7	5.4
Florida.....	20	7	0.5	2.6	0.3	0.7	1.3	11.2	20.9	32.4	0.3	0.4	7.3
East South Central....	35	10	2.2	15.2	1.5	3.1	8.7	131.1	71.3	194.7	(D)	0.9	29.4
West South Central....	51	12	0.9	5.5	0.6	1.1	2.7	24.4	45.0	66.4	2.0	1.0	20.9
Texas.....	31	10	0.6	3.7	0.4	0.7	1.9	13.2	25.5	37.7	1.1	0.8	16.6
West.....	82	26	2.6	19.4	1.5	3.0	9.7	64.3	104.0	166.3	2.1	2.1	53.0
Washington.....	9	1	0.1	0.5	-	-	0.1	1.0	2.3	3.2	(Z)	(D)	(D)
California.....	48	16	1.6	12.3	0.9	1.9	6.2	24.4	65.9	92.8	1.1	1.3	19.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
(Z) Less than \$50 thousand.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of Shipments")

Product code	Product	1967			1963		
		Production for all purposes (million pounds)	Total shipments, including interplant transfers		Production for all purposes (million pounds)	Total shipments, including interplant transfers	
			Quantity (million pounds)	Value (million dollars)		Quantity (million pounds)	Value (million dollars)
2879- --	AGRICULTURAL CHEMICALS, N.E.C., TOTAL.....	(X)	(X)	833.4	(X)	(X)	488.7
	Insecticidal and other fungicidal preparations (formulations) primarily for agricultural use, excluding aerosols and fly sprays:						
28790 10	Arsenic compounds (calcium and lead arsenate).....	(X)	(X)	1.4	5.6	4.9	1.5
28790 13	Arsenical insecticides and fungicides, including paris green and other copper arsenicals or mixtures containing arsenicals and excluding weed killers.....	(NA)	(NA)	3.8	(NA)	(NA)	3.6
28790 15	Sulfur containing preparations, including wettable sulfur, sulfur dust, and lime sulfur.....	(NA)	236.9	10.7	202.9	193.9	9.5
28790 32	Benzene hexachloride and/or lindane preparations without DDT...	(NA)	(NA)	2.3	(NA)	(NA)	4.1
	DDT-containing preparations:						
28790 33	Preparations containing DDT as the active ingredient.....	(NA)	155.3	23.8	192.0	181.7	25.8
28790 35	Preparations of DDT and other toxicants.....	(NA)	70.0	13.5	156.3	153.8	23.2
28790 39	Chlorinated hydrocarbon pesticidal preparations other than those containing benzene hexachloride or DDT.....	(NA)	217.6	68.7	308.4	298.6	68.8
	Organic Phosphate-containing preparations:						
28790 43	Preparations containing parathion as the active ingredient...	(NA)	38.3	12.3	219.8	204.6	59.7
28790 45	Preparations containing methyl parathion as the active ingredient.....	(NA)	49.8	25.3			
28790 47	Preparations containing other organic phosphates as the active ingredient.....	(NA)	151.8	64.2			
28790 49	Other agricultural insecticidal preparations and/or concentrates, including petroleum oil sprays and emulsions without other toxicants, excluding botanicals.....	(NA)	410.3	125.8	(NA)	(NA)	60.7
28790 61	Botanical preparations and/or concentrates for agricultural use.....	(NA)	30.7	7.3	(NA)	(NA)	0.8
28790 65	See treatment compounds (insecticides, fungicides, and innoculants).....	(NA)	30.0	10.5	20.9	20.5	7.7
28790 67	Copper-containing dry preparations, including dry bordeaux mixture, excluding paris green and copper sulfate.....	(NA)	23.7	6.3	19.8	19.0	3.1
28790 69	Other fungicidal preparations for agricultural use.....	(NA)	74.7	29.3	76.9	75.9	25.1
28790 71	Soil fumigants.....	(NA)	60.1	13.5	30.7	29.2	7.8
	Herbicidal preparations:						
28790 81	Sodium arsenite.....	(NA)	11.9	1.5	24.5	25.0	2.3
28790 82	Sodium chlorate preparations.....	(NA)	18.8	3.6	67.0	57.7	10.6
28790 83	2, 4-D, (2, 4-dichlorophenoxyacetic acid) and derivatives.....	(NA)	(NA)	46.4	(NA)	(NA)	25.6
28790 84	2, 4, 5-trichlorophenoxyacetic acid and derivatives.....	(NA)	(NA)	24.7	(NA)	(NA)	12.8
28790 85	Defoliant (except sodium chlorate preparations).....	(NA)	(NA)	5.0	192.3	186.1	67.8
28790 86	Desiccants (including arsenic acid).....	(NA)	7.1	1.4			
28790 87	Plant growth regulators.....	(NA)	(NA)	1.8			
28790 88	Carbamates (including CIPC, EPTC, CDAA, etc.).....	(NA)	(X)	22.9	67.4	(X)	46.8
28790 89	Other weed killers (hydrocarbon, etc.) including defoliant, desiccants, algicides, etc.....	(NA)	(NA)	212.5			
28790 98	Agricultural chemicals, n.e.c., such as disinfectants, animal dips, and soil conditioners.....	(NA)	(NA)	21.3	(NA)	(NA)	21.3
28790 00	Agricultural pesticides and other agricultural chemicals, n.s.k. (Represents principally establishments of companies with 10 employees or more in 1967. See Note.).....	(X)	(X)	67.4	(X)	(X)	46.8
28790 02	Agricultural pesticides and other agricultural chemicals, n.s.k. (Represents principally establishments of companies with fewer than 10 employees in 1967. See Note.).....	(X)	(X)	6.2			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2879, these small establishments accounted for approximately 0.7 percent of payrolls and 0.4 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

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In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

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These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**WASHINGTON, D.C. 20233**

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# 1967 CENSUS OF MANUFACTURES



## INDUSTRY SERIES

### Adhesives and gelatin

SIC Code 2891

**preliminary  
report**

The Adhesives and Gelatin Industry includes establishments primarily engaged in manufacturing gelatin and industrial and household adhesives, glues, sizes, and cements from vegetable, animal, or purchased synthetic plastics materials. Establishments primarily engaged in manufacturing dessert preparations based on gelatin are classified in industry 2099; vegetable gelatin or agar-agar in industry 2833; rubber cement in industry 3069; and asbestos cement in industry 3292.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Adhesives and Gelatin Industry amounted to \$473.1 million, an increase of 35 percent compared with 1963. Value added by manufacture at \$210.6 million in 1967 was 43 percent more than value added in 1963. Average employment in the industry showed an increase of 14 percent from 1963 to a total of 9.7 thousand employees in 1967.

Of the \$473.1 million total value of shipments and other receipts of establishments classified as adhesives and gelatin, \$73.6 million were products primary to other industries; and \$24.6 million were receipts for miscellaneous activities. The industry shipments of primary products

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
	INDUSTRY 2891.--ADHESIVES AND GELATIN													
1967 Census....	338	113	9.7	73.9	5.9	12.4	36.1	210.6	265.0	473.1	22.0	59.7	84	80
1966 ASM <sup>1</sup> .....	(NA)	(NA)	9.4	67.5	5.8	12.4	34.9	198.9	259.6	456.0	*22.2	56.6	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	8.9	62.9	5.6	11.8	32.0	177.3	230.0	406.5	9.7	49.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	8.6	58.4	5.6	11.3	31.0	155.1	203.7	352.5	7.4	51.5	(NA)	(NA)
1963 Census....	368	104	8.5	54.9	5.4	11.2	28.6	147.0	203.9	351.7	9.8	47.0	83	72
1962 ASM <sup>1</sup> .....	(NA)	(NA)	6.9	42.6	4.7	9.2	23.0	106.1	159.0	266.3	*7.9	40.5	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	7.2	43.9	5.0	10.0	24.6	108.3	161.7	269.1	*9.4	41.9	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	7.5	44.8	5.0	10.3	24.7	111.2	163.0	271.5	7.0	43.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	7.9	44.3	5.2	10.7	24.8	111.1	158.9	269.3	8.0	42.7	(NA)	(NA)
1958 Census <sup>2</sup> ....	274	93	7.9	42.1	5.2	10.6	23.9	106.4	139.3	245.2	8.1	39.8	86	70

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued September 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
Rocco C. Siciliano, Under Secretary  
**BUREAU OF THE CENSUS**

represented 84 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 83 percent in 1963.

The total value of adhesives and gelatin shipped by all producers in 1967 was \$471.1 million of which \$374.9 million, or 80 percent, were shipped by plants classified in industry 2891, Adhesives and Gelatin, while the remainder was shipped by plants classified in other industries.

This percent, called the coverage ratio, was 72 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2891.--ADHESIVES AND GELATIN													
United States, total.....	338	113	9.7	73.9	5.9	12.4	36.1	210.6	265.0	473.1	22.0	8.5	147.0
New England.....	45	16	2.1	16.7	1.3	2.7	8.9	40.1	42.1	81.4	5.5	(D)	(D)
Massachusetts.....	33	12	1.7	13.6	1.2	2.4	8.2	33.0	36.5	68.9	5.2	1.7	25.4
Middle Atlantic.....	81	29	2.4	17.6	1.5	3.1	8.6	45.0	59.5	104.1	2.7	(D)	(D)
New York.....	33	10	1.0	6.8	0.7	1.4	3.8	13.2	19.9	33.2	0.8	(D)	(D)
New Jersey.....	31	15	1.2	8.6	0.7	1.5	4.2	26.0	33.0	58.5	1.4	1.0	13.9
Pennsylvania.....	17	4	0.3	2.3	0.1	0.2	0.6	5.8	6.6	12.3	0.5	0.4	6.6
North Central.....	98	39	2.5	18.9	1.5	3.2	8.9	58.8	72.1	130.5	9.2	(D)	(D)
Michigan.....	9	4	0.2	2.0	0.1	0.2	0.6	7.5	7.9	15.8	0.1	0.3	6.5
South.....	66	14	1.8	12.8	1.2	2.5	6.8	44.9	59.4	103.6	2.9	(D)	(D)
Georgia.....	12	6	0.6	4.2	0.4	0.8	2.2	18.2	28.7	46.6	0.7	0.4	14.7
West South Central...	22	-	0.1	1.1	0.1	0.2	0.4	4.8	5.5	10.2	0.1	(D)	(D)
Texas.....	13	-	0.1	0.8	0.1	0.1	0.3	2.8	3.1	5.9	0.1	0.2	3.0
West.....	48	15	1.0	7.8	0.5	1.0	2.9	21.8	31.9	53.5	1.6	0.7	14.7
California.....	33	11	0.7	5.9	0.4	0.8	2.2	14.3	16.5	30.8	1.2	0.5	8.4

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.

- Represents zero.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2891- --	ADHESIVES AND GELATIN, TOTAL.....		(X)	471.1	(X)	386.0
28911 --	Glues, adhesives, and sizes, total.....		(X)	393.2	(X)	325.1
	Natural base glues and adhesives:					
	Animal glues:					
28911 11	Hide (dry forms).....	Million lbs...	75.3	18.6	52.1	13.1
28911 14	Bone, green and extracted (dry forms).....	...do.....	38.9	6.8	46.3	7.5
28911 26	Flexible, nonwarp, and liquid glue (not glue stock).....	...do.....	(S)	9.4	(NA)	14.4
	Protein adhesives:					
28911 41	Casein adhesives.....	...do.....	43.2	7.9	(NA)	7.2
28911 43	Soybean adhesives.....	...do.....	(X)	( <sup>1</sup> )	14.0	2.0
28911 45	Other, including blood, albumen, etc.....	...do.....	74.6	8.5	122.5	15.2
	Vegetable adhesives:					
28911 51	Dextrines.....	...do.....	167.9	20.5	200.2	19.3
28911 55	Starches.....	...do.....	46.9	6.8	82.2	7.2
28911 75	Adhesives made from natural gums and resins, except rubber....	...do.....	(S)	11.9	(NA)	11.1
28911 77	Mucilage.....	...do.....	(X)	( <sup>1</sup> )	(NA)	2.1
	Synthetic base adhesives and cements:					
28911 71	Synthetic resin adhesives made from purchased resins, including all types of bonding and laminating adhesives <sup>2</sup> ....	...do.....	611.2	134.6	<sup>e</sup> 303.4	79.8
28911 73	Rubber and synthetic resin combinations.....	...do.....	(S)	71.5	<sup>e</sup> 146.0	39.4
28911 78	Asphalt base adhesives.....	...do.....	(S)	8.7		
28911 79	Other formulated and prepared adhesives, except rubber cement, including lacquer adhesives.....	...do.....	<sup>1</sup> 67.4	<sup>1</sup> 12.2	(NA)	21.5
28911 83	Cements: furnace, porcelain, etc., except rubber cement.....	...do.....	(S)	0.8	23.4	3.5
	Sizes:					
28911 95	Rosin sizes.....	...do.....	365.3	41.0	(NA)	59.7
28911 98	Other, including dextrin sizes.....	...do.....	147.0	18.2	(NA)	10.4
28911 00	Glues and adhesives, n.s.k.....		(X)	15.8	(X)	11.7
28912 --	Gelatin, except ready-to-eat desserts, total.....		(X)	55.9	(X)	55.4
28912 11	Food grade (excluding pharmaceutical and photographic).....	Million lbs...	43.2	35.3	45.3	26.1
28912 31	Pharmaceutical grade (except unfilled capsules).....	...do.....	5.4	4.9	5.2	4.1
28912 51	Photographic grade.....	...do.....	(X)	(D)	7.8	10.8
28912 71	Technical (inedible) grade.....	...do.....	(X)	(D)	2.6	1.0
28912 98	Other gelatin products, except ready-to-eat desserts, including unfilled capsules and gelatin sheets for theatrical use.....		(X)	(D)		
28912 00	Gelatin, except ready-to-eat desserts, n.s.k.....		(X)	-	(X)	13.4
28910 00	Glue and gelatin, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	16.3		
28910 02	Glue and gelatin, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	5.7	(X)	5.4

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. <sup>e</sup>From 10 to 30 percent of this figure was estimated.  
(NA) Not available. n.s.k. Not specified by kind.

<sup>1</sup>Code 2891177, Mucilage and 2891143, Soybean adhesives included for 1967 in code 281179, "Other formulated and prepared adhesives."

<sup>2</sup>See industry 2821, Plastics Materials, for figures on synthetic resins for adhesives.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2891, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

### **Production and Related Worker Man-Hours--**

This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28G-2

## INDUSTRY SERIES

### Explosives

SIC Code 2892

**preliminary  
report**

The Explosive Industry includes establishments primarily engaged in manufacturing explosives. Establishments primarily engaged in manufacturing ammunition for small arms are classified in Group 196, and fireworks in industry 2899.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Explosives Industry amounted to \$629.0 million, an increase of 122 percent compared with 1963. Value added by manufacture at \$374.9

million in 1967 was 126 percent more than value added in 1963. Average employment in the industry showed an increase of 120 percent from 1963 to a total of 32.6 thousand employees in 1967.

Of the \$629.0 million total value of shipments and other receipts of establishments classified as explosives, \$12.8 million were products primary to other industries; and \$391.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 95 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 88 percent in 1963.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	End-of-year inventories  (million dollars)	Specialization ratio  (percent)	Coverage ratio  (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2892.--EXPLOSIVES													
1967 Census....	92	51	32.6	223.0	24.3	48.0	154.1	374.9	253.7	629.0	21.6	38.4	95	93
1966 ASM <sup>1</sup> .....	(NA)	(NA)	23.9	165.6	17.3	34.2	104.5	255.3	218.8	469.4	22.9	39.8	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	14.1	93.6	9.8	19.2	60.4	177.7	123.4	296.4	9.0	32.8	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	13.5	88.7	9.6	18.7	57.0	169.7	120.6	288.9	7.5	27.6	(NA)	(NA)
1963 Census....	68	47	14.8	91.6	10.9	20.9	60.1	165.7	116.4	283.3	5.5	27.2	88	94
1962 ASM <sup>1</sup> .....	(NA)	(NA)	14.0	85.0	10.8	20.8	57.5	148.7	120.5	270.5	5.9	23.8	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	12.4	74.5	9.6	18.3	49.9	123.2	109.6	233.2	6.4	24.7	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	12.5	73.2	9.5	18.2	48.8	132.0	100.1	232.7	6.0	25.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	13.7	76.4	10.3	19.3	50.2	141.4	103.5	245.1	5.6	26.9	(NA)	(NA)
1958 Census <sup>2</sup> ...	77	58	15.0	79.6	10.6	20.0	50.9	131.6	95.4	228.6	9.3	26.0	96	95

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

The total value of explosives shipped by all producers in 1967 was \$242.1 million of which \$225.0 million, or 93 percent, were shipped by plants classified in industry 2892, Explosives, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 94 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture  (million dollars)	Cost of materials  (million dollars)	Value of shipments  (million dollars)	Capital expenditures, new  (million dollars)	All employees  (1,000)	Value added by manufacture  (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
	INDUSTRY 2892.--EXPLOSIVES												
United States, total.....	92	51	32.6	223.0	24.3	48.0	154.1	374.9	253.7	629.0	21.6	14.8	165.7
Minnesota.....	4	3	0.1	0.9	0.1	0.2	0.6	2.3	3.1	5.5	(D)	(D)	(D)
South.....	21	10	13.4	92.5	10.6	21.2	66.7	141.2	122.4	263.7	(D)	5.8	50.1

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2892- --	EXPLOSIVES, TOTAL.....		(X)	<sup>1</sup> 242.1	(X)	<sup>1</sup> 181.0
	Industrial explosives:					
	High explosives.....		(X)	117.2	(X)	102.2
28921 13	Permissibles (approved by Bureau of Mines for underground coal mining) <sup>1</sup> .....	Million pounds	237.5	42.0	76.9	12.7
28921 17	Ammonium nitrate, fuel sensitized, except slurry <sup>2</sup> .....	...do.....	434.4	23.3	231.6	13.3
28921 18	Slurry (all types).....	...do.....	337.9	51.9	501.8	76.1
28921 19	Other high explosives, including liquid oxygen explosives, etc. ....	...do.....	}	(S)	{	(X)
28921 29	Other industrial explosives, including black blasting powder, shaped charges, etc. <sup>3</sup> .....	Million pounds				
28921 33	Propellants, including smokeless and black powder (excluding government-owned, contractor-operated plants).....	...do.....				
	Blasting accessories (excluding government-owned, contractor-operated plants):					
28921 41	Safety fuse.....	Million ft....	( <sup>4</sup> )	( <sup>4</sup> )	}	598.2
28921 51	Detonating fuse.....	...do.....	( <sup>4</sup> )	( <sup>4</sup> )		
	Detonators:					
28921 43	Blasting caps, electric, delay.....	Million units.	48.8	18.5	46.9	14.6
28921 45	Blasting caps, electric, except delay.....	...do.....	47.4	15.4	50.6	12.1
28921 47	Blasting caps, except electric.....	...do.....	72.5	1.9	57.8	1.2
28921 61	Other blasting accessories (squibs, ignitors, boosters, etc.)..		(X)	<sup>4</sup> 24.5	(X)	14.2
28921 71	Other explosives <sup>5</sup> .....		(X)	15.6	(X)	5.4
28920 00	Explosives, n.s.k. (For companies with 10 or more employees. See Note.).....		(X)	19.1	}	(X)
28920 02	Explosives, n.s.k. (For companies with less than 10 employees. See Note.).....		(X)	0.1		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>The estimated value of explosives produced in government-owned contractor operated plants, including receipts for operation and maintenance, is included with miscellaneous receipts and thus excluded from this table. The total value of miscellaneous receipts included in the total value of shipments shown in tables 1 and 2 is \$343 million in 1967 and \$90 million in 1963.

<sup>2</sup>Excludes ammonium nitrate, field mix.

<sup>3</sup>Includes fuse powder and nitroglycerin sold as such.

<sup>4</sup>Codes 2892141 and 2892151 combined with code 2892161.

<sup>5</sup>Includes military detonators, jet starters, fuse and explosive assemblies, etc.

1967 CENSUS OF MANUFACTURES  
TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Basis	Unit of measure	Total consumption of materials (quantity)	Consumption of materials received from other establishments		Materials made and consumed in same plant
					Quantity	Delivered cost (million dollars)	
		1967					
INDUSTRY 2892.--EXPLOSIVES							
	Materials, total.....			(X)	(X)	225.7	(X)
281912	Ammonia, synthetic anhydrous.....	100% NH <sub>3</sub> ...	1,000 short tons	(NA)	197.7	11.5	(NA)
281914	Ammonium nitrate.....	100% NH <sub>4</sub> NO <sub>3</sub>	..do.....	(NA)	107.4	6.4	(NA)
281901	Mixed acid (sulfuric and nitric).....	..do.....	..do.....	(NA)	11.7	0.8	(NA)
281911	Nitric acid.....	100% HNO <sub>3</sub> ..	..do.....	(NA)	(D)	(D)	(NA)
281931	Sulfuric acid, except spent acid.....	100% H <sub>2</sub> SO <sub>4</sub> ..	..do.....	(NA)	370.4	8.5	(NA)
970099	All other materials and components, parts and supplies consumed.....			(X)	(X)	177.9	(X)
973000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....			(X)	(X)	20.6	(X)
		1963					
	Materials, total.....			(X)	(X)	100.6	(X)
281912	Ammonia, synthetic anhydrous.....	100% NH <sub>3</sub> ...	1,000 short tons	(D)	83.5	5.6	(D)
281914	Ammonium nitrate.....	100% NH <sub>4</sub> NO <sub>3</sub>	..do.....	228.2	101.1	5.9	127.2
281901	Mixed acid (sulfuric and nitric).....	..do.....	..do.....	42.9	9.3	0.6	33.7
281911	Nitric acid.....	100% HNO <sub>3</sub> ..	..do.....	(D)	(D)	(D)	189.6
281931	Sulfuric acid, except spent acid.....	100% H <sub>2</sub> SO <sub>4</sub> ..	..do.....	79.2	54.8	1.2	24.4
970099	All other materials and components, parts and supplies consumed.....			(X)	(X)	85.8	(X)
973000	Materials, containers, and supplies, n.s.k. <sup>1</sup> .....			(X)	(X)	1.4	(X)

(D) Withheld to avoid disclosing figures for individual companies. In some cases figures which are otherwise publishable are withheld to avoid indirect disclosure by subtraction from higher-level totals or from related figures. (NA) Not available. n.s.k. Not specified by kind.  
(X) Not applicable.

<sup>1</sup>This item represents the total cost of materials for establishments that did not report detailed materials data. For 1967 this includes estimates for companies that were not mailed report forms.



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2892, these small establishments accounted for approximately 0 percent of payrolls and 0 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

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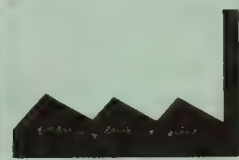
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28G-3

## INDUSTRY SERIES

**preliminary  
report**

### Printing ink

SIC Code 2893

The Printing Ink Industry includes establishments primarily engaged in manufacturing printing ink, gravure ink, screen process ink, and lithographic ink.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Printing Ink Industry amounted to \$374.4 million, an increase of 40 percent compared with 1963. Value added by manufacture at

\$166.0 million in 1967 was 33 percent more than value added in 1963. Average employment in the industry showed an increase of 14 percent from 1963 to a total of 9.7 thousand employees in 1967.

Of the \$374.4 million total value of shipments and other receipts of establishments classified as printing ink, \$23.8 million were products primary to other industries; and \$26.2 million were receipts for miscellaneous activities. The industry shipments of primary products represented 93 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 93 percent in 1963.

**TABLE 1. General Statistics: 1958 to 1967**

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
	INDUSTRY 2893.--PRINTING INK													
1967 Census....	359	123	9.7	73.6	6.4	13.5	41.0	166.0	211.3	374.4	7.1	44.6	93	95
1966 ASM <sup>1</sup> .....	(NA)	(NA)	10.1	74.7	6.4	13.7	41.4	181.5	198.3	377.0	*3.5	44.9	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	9.3	67.7	6.0	12.8	38.3	162.5	174.2	335.2	4.5	37.5	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	8.5	61.7	5.4	12.1	35.0	136.6	166.1	299.8	*7.4	36.0	(NA)	(NA)
1963 Census....	348	103	8.5	55.9	5.6	11.8	32.4	125.1	143.6	268.0	4.6	31.1	93	92
1962 ASM <sup>1</sup> .....	(NA)	(NA)	8.4	57.6	5.6	12.1	33.2	123.2	143.2	265.7	*4.2	34.4	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	8.0	52.6	5.5	11.8	31.5	117.5	137.4	252.5	*3.4	30.8	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	8.3	51.7	5.6	12.1	30.6	108.3	136.4	245.5	*4.3	29.0	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	8.1	47.0	5.5	11.7	28.8	110.1	131.5	239.9	3.4	27.6	(NA)	(NA)
1958 Census <sup>2</sup> ...	302	94	8.0	45.1	5.4	11.2	26.0	108.8	119.1	228.1	4.8	25.1	93	97

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 4 and 4, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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**U.S. DEPARTMENT OF COMMERCE** Maurice H. Stans, Secretary  
**Rocco C. Siciliano**, Under Secretary  
**BUREAU OF THE CENSUS** George Hay Brown, Director

The total value of printing ink shipped by all producers in 1967 was \$342.6 million of which \$324.4 million, or 95 percent, were shipped by plants classified in industry 2893, Printing Ink, while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 92 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2893, --PRINTING INK												
United States, total.....	359	123	9.7	73.6	6.4	13.5	41.0	166.0	211.3	374.4	7.1	8.5	125.1
Northeast.....	119	38	3.4	26.8	2.3	4.9	15.5	57.3	72.6	129.1	3.1	3.4	47.2
Pennsylvania.....	21	13	0.8	5.8	0.5	1.0	3.2	11.9	14.8	26.5	0.3	0.7	8.0
East North Central....	92	44	3.4	25.8	2.2	4.6	14.2	64.3	73.8	137.3	2.3	3.0	45.6
Ohio.....	28	12	0.8	5.3	0.5	1.1	3.1	14.1	16.1	30.3	0.8	0.7	10.3
Illinois.....	44	23	2.2	17.4	1.5	3.1	9.6	41.4	48.2	89.0	1.6	1.9	30.0
Wisconsin.....	9	4	0.1	1.0	0.1	0.2	0.5	3.1	4.3	7.2	0.1	(D)	(D)
West North Central....	20	5	0.4	2.9	0.2	0.5	1.5	8.2	8.1	16.1	0.2	0.4	4.6
Missouri.....	14	3	0.3	1.9	0.2	0.3	0.9	5.2	5.5	10.6	0.1	0.2	2.8
South.....	68	19	1.1	7.5	0.7	1.4	3.7	19.2	24.9	43.6	0.7	0.7	11.8
North Carolina.....	9	3	0.2	1.0	0.2	0.3	0.6	3.0	3.2	6.2	0.1	(D)	(D)
West.....	60	17	1.4	10.5	0.9	2.1	6.2	17.1	31.9	48.2	0.9	1.0	15.9
Pacific.....	55	17	1.4	10.2	0.9	2.0	6.1	16.4	30.8	46.6	0.8	0.9	15.4
California.....	46	15	1.2	9.4	0.8	1.9	5.6	14.5	28.8	42.6	0.7	0.8	14.5

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	Total shipments including interplant transfers			
			1967		1963	
			Quantity	Value (million dollars)	Quantity	Value (million dollars)
2893- --	PRINTING INK, TOTAL.....	.....	(X)	342.6	(X)	258.2
	Letterpress inks, total.....	Million lbs...	(NA)	99.7	(NA)	93.0
	News inks:					
28930 03	Black.....	...do.....	(S)	37.8	(NA) 22.4	15.3 8.4
28930 04	Color.....	...do.....				
	Book and magazine publication inks:					
28930 07	Black.....	...do.....	(S)	22.5	39.2 20.6	12.9 12.2
28930 08	Color.....	...do.....				
28930 15	Container and label inks, black and color.....	...do.....	36.8	29.3	48.8	34.3
28930 19	Other letterpress inks.....	...do.....	11.1	10.1	9.5	10.0
	Lithographic and offset inks, total.....	...do.....	80.1	86.2	49.6	59.5
28930 31	News inks.....	...do.....	31.9	27.3	13.6	14.8
28930 32	Other publication inks.....	...do.....	12.7	14.0		
28930 35	Container and label inks.....	...do.....	19.8	21.9	15.4	18.7
28930 39	Other lithographic and offset inks.....	...do.....	15.7	23.0	20.6	25.9
	Gravure inks, total.....	...do.....	173.3	42.3	121.4	38.1
28930 43	Packaging, including labels and wrapper inks.....	...do.....	41.4	19.2	62.9	25.2
28930 45	Publication inks.....	...do.....	106.8	17.8	58.5	12.9
28930 49	Other gravure inks.....	...do.....	25.1	5.3		
28930 71	Textile printing inks.....	...do.....	26.7	18.0	31.0	16.9
28930 81	Flexographic inks.....	...do.....	73.4	42.0	44.1	26.6
28930 85	Screen printing inks.....	...do.....	(S)	8.3	(NA)	14.6
28930 98	Other printing inks, including stencil inks.....	...do.....	27.8	14.4		
28930 00	Printing inks, n.s.k. (For companies with more than 10 employees. See Note.).....	.....	(X)	28.7	(X)	9.6
28930 02	Printing inks, n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	3.0		

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.s.k. Not specified by kind. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)

## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2893, these small establishments accounted for approximately 1 percent of payrolls and 1 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28G-4

## INDUSTRY SERIES

**preliminary  
report**

### Carbon black

SIC Code 2895

The Carbon Black Industry includes establishments primarily engaged in manufacturing carbon black (channel and furnace black).

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Carbon Black Industry amounted to \$167.8 million, an increase of 13 percent compared with 1963. Value added by manufacture at \$101.1 million in 1967 was 10 percent more than value added in 1963. Average employment in the indus-

try showed a decrease of 7 percent from 1963 to a total of 2.8 thousand employees in 1967.

Of the \$167.8 million total value of shipments and other receipts of establishments classified as carbon black, less than 1 percent were receipts for miscellaneous activities.

The total value of carbon black shipped by all producers in 1967 was \$168.0 million of which more than 99 percent, were shipped by plants classified in industry 2895, Carbon Black.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	End-of-year inventories	Specialization ratio	Coverage ratio
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(percent)	(percent)
	INDUSTRY 2895.--CARBON BLACK													
1967 Census....	33	29	2.8	22.8	2.3	5.2	18.0	101.1	67.4	167.8	23.4	16.5	(D)	(D)
1966 ASM <sup>1</sup> .....	(NA)	(NA)	2.9	23.5	2.3	5.0	18.2	113.1	75.6	187.8	13.3	17.4	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	2.8	21.2	2.3	5.0	16.5	105.5	65.5	170.5	10.1	16.0	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	2.8	21.0	2.2	4.9	15.2	101.0	62.2	164.4	8.0	15.4	(NA)	(NA)
1963 Census....	33	31	3.0	20.7	2.3	4.9	14.9	91.8	55.5	149.1	4.0	15.0	(D)	(D)
1962 ASM <sup>1</sup> .....	(NA)	(NA)	3.0	20.5	2.4	5.2	15.8	92.5	54.6	148.2	9.6	16.6	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	3.1	20.7	2.6	5.6	16.3	88.2	55.5	144.7	10.2	18.3	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	3.2	20.6	2.7	6.0	16.9	84.7	68.4	150.3	10.3	19.4	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	3.1	19.7	2.6	5.8	15.9	81.0	60.0	144.3	6.1	16.0	(NA)	(NA)
1958 Census <sup>2</sup> ....	36	32	3.2	18.6	2.6	5.6	14.7	72.6	46.9	119.3	4.6	19.5	100	100

(D) Withheld to avoid disclosing figures of individual companies. (NA) Not available.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 1 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

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BUREAU OF THE CENSUS George Hay Brown, Director

## 1967 CENSUS OF MANUFACTURES

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	All employees (1,000)	Value added by manufacture (million dollars)
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)						
INDUSTRY 2895.--CARBON BLACK													
United States, total.....	33	29	2.8	22.8	2.3	5.2	18.0	101.1	67.4	167.8	23.4	3.0	91.8
South.....	26	24	2.6	21.1	2.1	4.8	16.7	95.1	61.9	156.3	(D)	(D)	(D)
Louisiana.....	7	7	1.0	8.1	0.9	2.1	6.9	33.0	22.5	55.6	(D)	0.8	26.6
Texas.....	16	15	1.4	11.9	1.1	2.5	8.9	53.0	36.4	88.9	3.0	1.7	52.0

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

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TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
28950 11	CARBON BLACK (CHANNEL AND FURNACE PROCESS ONLY) <sup>1</sup>	Million lbs.	2,440.0	2,415.7	168.0	2,060.3	2,071.1	149.4

<sup>1</sup>For additional detail on production and shipments of channel and furnace carbon black see Minerals Yearbook published by Bureau of Mines, Department of Interior.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(See appendix, "Explanation of Terms")

Code	Material	Unit of measure	1967		1963	
			Quantity	Delivered cost (million dollars)	Quantity	Delivered cost (million dollars)
	INDUSTRY 2895.--CARBON BLACK					
	Materials, containers, and supplies, total.....	.....	(X)	60.9	(X)	49.3
291101	Fuel oil used as raw material.....	1,000 bbls. (42 Gal.).....	10,380.1	29.5	8,203.6	24.3
131302	Natural gas used as a raw material.....	Million cu. ft....	104,015.5	14.5	124.6	15.4
970099	All other materials and components, parts, containers and supplies consumed.....	.....	(X)	16.9	(X)	9.6

(X) Not applicable.

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As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.



# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--**All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--**This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--**This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--**The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--**In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--**The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.





# CURRENT INDUSTRIAL REPORTS

*Current Industrial Reports present data for industries in the following broad categories:*

**Textile mill products • Apparel and leather • Chemicals, rubber, and plastics • Machinery and equipment • Primary metals • Intermediate metal products • Processed foods • Lumber, furniture, and paper products • Stone, clay, and glass products.**

A continuing series of more than 100 monthly, quarterly, and annual reports on industrial production, inventories, and orders. Issued by the Bureau of the Census, this series presents data for 5,000 products representing 40 percent of all manufacturing in the United States.

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*For information on individual product groups covered, frequency of reports, and subscription prices, write to the Bureau of the Census, Washington, D. C. 20233.*

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**U. S. DEPARTMENT OF COMMERCE**  
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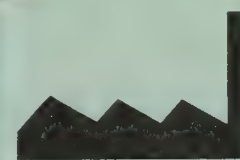
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# 1967 CENSUS OF MANUFACTURES



MC67(P)-28G-5

## INDUSTRY SERIES

### Chemical preparations, n.e.c.

SIC Code 2899

**preliminary  
report**

The Chemicals and Chemical Preparations, Not Elsewhere Classified, Industry includes establishments primarily engaged in manufacturing miscellaneous chemical preparations, not elsewhere classified, such as fatty acids, essential oils, bluing, laundry soaps, writing and stamp pad inks; industrial compounds, such as boiler and heat insulating compounds, metal, oil and water treating compounds, waterproofing compounds and chemical supplies for foundries.

The classification of establishments for which data are tabulated in this report is based upon the definitions contained in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

In 1967, the value of products shipped and miscellaneous receipts of establishments classified in the Chemical Preparations, N.E.C., Industry amounted to \$1,401.6 million, an increase of 50 percent compared with 1963. Value added by manufacture at \$740.3 million in 1967 was 46 percent more than value added in 1963. Average employment in the industry showed an increase of 29 percent from 1963 to a total of 33.4 thousand employees in 1967.

Of the \$1,401.6 million total value of shipments and other receipts of establishments classified as chemical preparations, n.e.c., \$236.0 million were products primary to other industries; and \$107.7 million were receipts

TABLE 1. General Statistics: 1958 to 1967

(See appendix, "Explanation of Terms")

Year	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	Capital expenditures, new (million dollars)	End-of-year inventories (million dollars)	Specialization ratio (percent)	Coverage ratio (percent)
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages							
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)							
INDUSTRY 2899.--CHEMICAL PREPARATIONS, N.E.C.														
1967 Census....	1,377	309	33.4	232.1	21.1	42.1	115.7	740.3	660.9	1,401.6	59.0	167.1	82	75
1966 ASM <sup>1</sup> .....	(NA)	(NA)	29.7	211.5	18.2	38.6	105.7	679.1	652.2	1,322.5	34.0	157.3	(NA)	(NA)
1965 ASM <sup>1</sup> .....	(NA)	(NA)	28.7	196.7	17.4	36.8	96.3	612.6	573.8	1,182.0	29.7	134.6	(NA)	(NA)
1964 ASM <sup>1</sup> .....	(NA)	(NA)	27.2	180.3	16.9	34.9	89.8	567.3	492.0	1,057.2	22.9	130.4	(NA)	(NA)
1963 Census....	1,387	242	25.8	162.9	15.7	33.0	81.1	505.9	435.7	931.7	22.1	117.7	82	71
1962 ASM <sup>1</sup> .....	(NA)	(NA)	24.3	148.5	14.6	30.9	72.1	490.8	408.3	895.6	37.0	118.7	(NA)	(NA)
1961 ASM <sup>1</sup> .....	(NA)	(NA)	24.0	145.9	14.4	30.0	70.2	445.1	381.6	827.1	*42.0	111.6	(NA)	(NA)
1960 ASM <sup>1</sup> .....	(NA)	(NA)	23.6	139.4	14.4	28.8	68.4	429.4	361.7	787.6	22.6	107.5	(NA)	(NA)
1959 ASM <sup>1</sup> .....	(NA)	(NA)	25.4	145.6	16.1	31.5	73.4	412.1	393.2	802.0	19.8	108.3	(NA)	(NA)
1958 Census <sup>2</sup> ...	1,294	225	25.1	133.8	16.0	31.3	70.3	365.8	358.5	726.2	26.1	102.2	86	76

\*These figures either have associated standard errors exceeding 15 percent or are not consistent with other Census series and related data. Thus, these estimates may be of limited reliability.

(NA) Not available. n.e.c. Not elsewhere classified.

<sup>1</sup>Based on a representative sample of establishments canvassed in the annual survey of manufactures (ASM). These estimates may differ from the results of a complete canvass of all manufacturing establishments. The percentage standard errors of the 1966/1965 relatives for employment and value added were 5 and 1, respectively.

<sup>2</sup>Data prior to 1958 appear in Volume II, 1963 Census of Manufactures, in table 1 of the chapter devoted to this industry.

Issued December 1969

For sale by the Bureau of the Census, Wash., D.C., 20233 or any U.S. Department of Commerce field office. 10 cents

**U.S. DEPARTMENT OF COMMERCE Maurice H. Stans, Secretary**

**Rocco C. Siciliano, Under Secretary**

**Harold C. Passer, Assistant Secretary for Economic Affairs**

**BUREAU OF THE CENSUS George Hay Brown, Director**

for miscellaneous activities. The industry shipments of primary products represented 82 percent of the total manufactured product shipments, primary and secondary. This percent, called the specialization ratio for the industry, was 82 percent in 1963.

The total value of chemical preparations, n.e.c., shipped by all producers in 1967 was \$1,411.6 million of which \$1,057.9 million, or 75 percent, were shipped by plants classified in industry 2899, Chemical Preparations, N.E.C.,

while the remainder was shipped by plants classified in other industries. This percent, called the coverage ratio, was 71 percent in 1963.

These ratios were developed to measure the extent to which the industry statistics in tables 1, 2, and 4 may be compared with the product statistics in table 3.

For an explanation of the terms used in the tables, see appendix at the end of this report.

TABLE 2. General Statistics, by Geographic Areas: 1967 and 1963

(See appendix, "Explanation of Terms")

Geographic area	1967											1963	
	Establishments		All employees		Production workers			Value added by manufacture	Cost of materials	Value of shipments	Capital expenditures, new	All employees	Value added by manufacture
	Total	With 20 employees or more (number)	Number	Payroll	Number	Man-hours	Wages						
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	INDUSTRY 2899.--CHEMICAL PREPARATIONS, N.E.C.												
United States, total.....	1,377	309	33.4	232.1	21.1	42.1	115.7	740.3	660.9	1,401.6	59.0	25.8	505.9
New England.....	97	21	1.4	10.4	0.8	1.5	3.7	25.6	40.5	66.9	5.6	0.9	12.4
Massachusetts.....	41	7	0.6	4.2	0.4	0.7	1.7	10.8	10.2	22.2	0.4	0.3	4.7
Connecticut.....	27	9	0.5	4.4	0.2	0.5	1.2	10.3	17.7	27.9	0.5	0.4	5.9
Middle Atlantic.....	356	88	8.7	63.1	5.4	11.1	30.8	161.8	163.5	324.1	14.3	6.8	120.6
New York.....	149	28	2.3	16.5	1.3	2.6	7.6	51.0	51.3	102.1	1.6	2.4	44.3
New Jersey.....	110	34	4.0	27.1	2.8	5.8	16.3	67.3	68.1	135.1	7.0	2.3	46.0
Pennsylvania.....	97	26	2.4	19.5	1.3	2.6	7.0	43.5	44.1	86.9	5.6	2.1	30.2
East North Central....	349	97	10.0	74.6	6.4	13.1	39.3	263.5	247.7	509.5	24.6	8.8	196.3
Ohio.....	99	29	4.0	29.8	2.5	5.2	15.4	95.5	74.0	169.4	7.3	3.4	69.0
Indiana.....	24	7	0.6	4.1	0.4	0.9	2.6	17.1	18.0	34.9	(D)	0.5	15.4
Illinois.....	119	30	2.5	19.5	1.6	3.4	10.3	76.3	79.0	153.7	4.3	2.6	58.2
Michigan.....	81	24	2.5	18.5	1.6	3.3	9.7	67.8	70.6	138.6	(D)	2.0	50.3
Wisconsin.....	26	7	0.4	2.8	0.2	0.4	1.3	6.8	6.1	12.8	(D)	0.3	3.3
West North Central....	82	15	3.1	22.8	1.8	3.2	10.2	112.2	47.4	164.5	3.5	2.8	74.7
Missouri.....	33	7	0.8	6.4	0.3	0.5	1.5	19.6	14.3	33.7	(D)	0.7	14.9
South Atlantic.....	116	20	2.4	15.3	1.4	2.6	6.0	42.6	36.9	79.1	(D)	(D)	(D)
Maryland.....	23	7	0.7	5.0	0.4	0.8	2.1	9.5	11.3	20.9	0.4	0.6	8.0
North Carolina.....	19	4	0.6	3.4	0.4	0.8	1.3	8.3	6.0	14.3	0.4	0.5	6.5
East South Central....	36	14	2.8	13.2	2.0	4.2	8.4	29.1	36.4	64.9	(D)	(D)	(D)
Alabama.....	9	5	0.4	2.1	0.2	0.4	1.1	5.1	7.4	11.8	0.6	(D)	(D)
West South Central....	129	22	2.0	12.0	1.3	2.5	6.0	41.5	33.3	74.2	2.9	(D)	(D)
Texas.....	94	18	1.4	8.9	0.9	1.7	4.2	31.4	26.1	56.6	2.5	1.2	21.4
Mountain.....	37	5	0.3	2.3	0.3	0.5	1.4	6.3	2.8	9.1	0.4	(D)	(D)
Pacific.....	175	27	2.7	18.4	1.8	3.4	9.8	57.6	52.3	109.2	2.2	(D)	(D)

Note: Each producing State not shown separately in the above table was withheld either (a) to avoid disclosing figures for individual companies in this or associated industries or areas or (b) because the industry was of relatively minor economic importance in the State.

(D) Individual figures that are withheld are indicated with a (D). All such figures are included in higher-level totals.  
n.e.c. Not elsewhere classified.



TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
2899- --	CHEMICAL PREPARATIONS, N.E.C., TOTAL.....		(X)	(X)	1,411.6	(X)	(X)	998.6
28991 11	Salt, evaporated (bulk, pressed blocks, and packaged) <sup>1</sup> .....	Million short tons.	5.4	5.4	111.6	4.6	4.6	98.4
28992 --	Fatty acids.....		(X)	(X)	117.4	(X)	(X)	88.1
28992 11	Saturated acids.....		(X)	(X)	63.4	(X)	(X)	46.4
28992 11	Stearic acid (40-50 percent stearic content) types commercially designated as single, double, or triple pressed.....	Million lbs.	64.3	63.3	10.3	63.6	63.5	9.4
28992 21	Other stearic acids (over 50 percent stearic content), high palmitic content (over 60 percent palmitic), hydrogenated animal and vegetable fatty acids.....	..do.....	155.8	163.3	19.0	196.6	194.7	24.8
28992 53	Coconut-type fatty acids, including coconut, babassu, and palm kernel.....	..do.....	175.9	162.5	20.4	96.2	82.4	10.9
28992 55	Fractionated fatty acids, including lauric, caprylic, capric, and myristic.....	..do.....	(S)	24.7	6.6			
28992 59	Other saturated acids, including hydrogenated fish and marine mammal fatty acids.....	..do.....	55.3	55.1	7.1	8.8	10.1	1.3
28992 61	Unsaturated acids.....		(X)	(X)	51.3	(X)	(X)	41.8
28992 81	Oleic acid, including white oleic and red oil... Million lbs.		(S)	80.1	13.7	105.1	73.2	11.6
28992 91	Unsat. vegetable fatty acids (unhydrogenated).....	..do.....	(S)	36.7	6.2	52.9	48.6	8.4
28992 95	Tall oil fatty acids (containing 90 percent or more free fatty acids, excluding rosin acids)..	..do.....	(S)	274.9	22.6	274.0	210.4	18.6
28992 95	Other unsaturated acids including unsaturated animal fatty acids (unhydrogenated), other than oleic.....	..do.....	(S)	108.0	8.8	51.1	26.2	3.2
28992 00	Fatty acids, n.s.k.....		(X)	(X)	2.7	(X)	(X)	(X)
28993 --	Essential oils, fireworks, and pyrotechnics, and chemicals and chemical preparations, n.e.c.....		(X)	(X)	1,060.9	(X)	(X)	770.9
	Essential oils, unblended (natural):							
	Citrus oils:							
28993 11	Orange.....	Million lbs.	(S)	(S)	6.6	(NA)	5.2	3.0
28993 12	Lemon.....	..do.....	(S)	2.6	10.9	(NA)	1.6	8.2
28993 13	Other.....	..do.....	(S)	1.6	5.6	(NA)	1.0	2.4
28993 15	Peppermint oil.....	..do.....	(S)	2.2	15.5	(NA)	1.6	8.8
28993 19	Other natural essential oils.....	..do.....	(S)	3.4	18.4	(NA)	4.8	11.9
28993 29	Fireworks and pyrotechnics.....	..do.....	(S)	(S)	51.1	(X)	(X)	16.5
	Chemical preparations, n.e.c.:							
	Automotive chemicals:							
	Antifreeze preparations:							
28993 35	Permanent type <sup>2</sup> .....	Million gal.	(X)	(X)	131.9	(X)	(X)	146.0
28993 36	Other.....	..do.....						
28993 37	Other automotive chemicals.....	..do.....						
28993 39	Concrete curing and floor hardening materials...	Million lbs.	(S)	174.4	28.3	86.9	86.2	10.9
28993 41	Drilling mud materials, mud thinners, thickeners and purifiers.....	..do.....	(S)	(S)	17.6	394.0	393.7	13.7
28993 49	Foundry supplies, chemical.....		(X)	(X)	38.3	(X)	(X)	24.4
28993 53	Household tints and dyes.....	Million lbs.	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
28993 55	Insulation products (heat, electrical, other)...		(X)	(X)	16.4	(X)	(X)	14.1
28993 59	Metal-treating compounds (nonoil base) for nitriding, pickling, drawing, and cutting.....		(X)	(X)	50.4	(X)	(X)	42.8
28993 61	Oil treating compounds (nonoil base).....		(X)	(X)	43.6	(X)	(X)	31.0
28993 72	Inks (writing and stamp pad ink, including indelible ink and marking fluid, excluding drawing inks).....	Million gal.	(S)	(S)	9.3	(S)	(S)	10.2
	Water treating compounds:							
28993 77	Boiler compounds.....	Million lbs.	(S)	413.9	114.8	127.3	126.4	30.8
28993 79	Other water softening compounds.....	..do.....				248.7	247.6	43.0
28993 81	Water proofing compounds (electrical, leather, masonry, textile, etc.).....		(X)	(X)	30.1	(X)	(X)	23.3
28993 87	Vitreous enamel (frit).....	Million lbs.	200.7	199.9	32.0	222.3	219.6	36.2
28993 91	Plating compounds.....	..do.....	(S)	(S)	73.2	(S)	(S)	33.9
28993 93	Lighter fluids (cigarette, charcoal, etc.).....	Million gal.	(S)	(S)	17.6	2.8	2.7	9.7
28993 98	Other industrial chemical specialties, including fluxes and plastic wood preparations.....		(X)	(X)	<sup>3</sup> 301.8	(X)	(X)	222.1

See footnotes at end of table.

TABLE 3. Quantity and Value of Shipments by All Producers: 1967 and 1963—Continued

(Includes quantity and value of the products reported not only by establishments classified in this industry, but also by establishments classified in other industries, and shipping these products as "secondary" products. See appendix under "Value of shipments")

Product code	Product	Unit of measure	1967			1963		
			Production for all purposes (quantity)	Total shipments, including interplant transfers		Production for all purposes (quantity)	Total shipments, including interplant transfers	
				Quantity	Value (million dollars)		Quantity	Value (million dollars)
	CHEMICAL PREPARATIONS, N.E.C.—Continued							
	Essential oils, fireworks, and pyrotechnics, and chemicals and chemical preparations, n.e.c.—Con.							
28993 00	Other essential oils, fireworks, and pyrotechnics, and chemicals and chemical preparations, n.e.c., n.s.k.....	.....	(X)	(X)	47.5	(X)	(X)	27.8
28990 00	Chemicals and chemical preparations, n.e.c., n.s.k. (For companies with more than 10 employees. See Note.).....	.....	(X)	(X)	90.3	}	(X)	41.2
28990 02	Chemicals and chemical preparations, n.e.c., n.s.k. (For companies with less than 10 employees. See Note.).....	.....	(X)	(X)	31.4			

Note: In the 1967 Census of Manufactures, data for establishments of small companies, typically those with less than 10 employees, were estimated from administrative records rather than collected from respondents. These estimated shipments are included in the code ending with "002" and is further discussed in the text. Such establishments were usually mailed a "short form" in the 1963 Census of Manufactures. These short forms typically provided for coding products to the product class level (5 digits) followed by "00" rather than only to the 4-digit level followed by "000." Therefore, the 1963 "n.s.k." (000) figure is not strictly comparable to the total of the two "n.s.k." (000 and 002) figures in 1967.

In addition to the 1967 "n.s.k." (code 002) resulting from the above, in both the 1967 and 1963 Censuses of Manufactures, products which were not completely identified on the standard forms were coded to the appropriate product class code (5 digits) followed by "00," or in some cases to the appropriate product group code (4 digits) followed by "000."

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review. (X) Not applicable.

<sup>1</sup>Includes for 1967 between 50 and 100 thousand tons of evaporated salt valued at less than \$5 million shipped by establishments classified in the mineral industries. Comparable 1963 data are between 50 and 80 thousand tons valued at less than \$4 million. For annual information on evaporated salt, rock salt, and salt in brine see Bureau of Mines Minerals Yearbook.

<sup>2</sup>Excludes unspecified amount of permanent type antifreeze preparations classified as product code 28182 11, acyclic chemicals.

<sup>3</sup>Product code 28993 53 combined with code 28993 98.

TABLE 4. Materials Consumed, by Kind: 1967 and 1963

(Not applicable to this report)



## SCOPE AND COVERAGE

This report is one of a series presenting preliminary information on industries and products from the 1967 Census of Manufactures. The data will be superseded in a final report which in turn will be included in *Volume II, Industry Statistics, 1967 Census of Manufactures*. That report will include a comprehensive discussion of the concepts and definitions used in the census.

The census of manufactures covers each manufacturing establishment in the United States with one or more paid employees; manufacturing establishments with no employees are excluded from this census. Firms which operate more than one establishment were required to file a separate report for each location. Companies which engaged in distinctly different lines of activity at one location were asked to submit separate reports if the company records permitted such a separation and the activities were of significant size.

This report does not include figures for administrative offices, warehouses, garages, or other auxiliary units which service manufacturing establishments.

In the 1967 census, for the first time, the approximately 120,000 manufacturing firms with less than 10 employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For manufacturing as a whole, they account for less than 3 percent of the payrolls and value added. In industry 2899, these small establishments accounted for approximately 2 percent of payrolls and 2 percent of value added by manufacture. Detailed product and materials data for these small establishments were not estimated. The entire estimated value of shipments and cost of materials was imputed to a "not specified by kind" category.

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than 10 employees). The industry classifications for

these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

The general statistics (employment, payrolls, cost of materials, value added by manufacture, value of shipments) appearing in tables 1, 2, and 4 are reported for each establishment as a whole. Thus, these data reflect not only the primary activities of the establishments, which determine their industry classification, but also all secondary activities as well. This fact should be taken into consideration when comparing the data in tables 1, 2, and 4 with the value of products appearing in table 3. The data in table 3 provide information on the value of the primary products of the industry shipped by all manufacturing establishments whether they are classified in the industry or are classified in other industries and producing the products as secondary products.

More detailed figures for this industry will appear in the final census reports. Final reports will also include a comprehensive discussion of such concepts as "industry," "establishments," and "secondary production," as well as the various statistical items such as "employment," and "value added." Similar preliminary and final reports will be issued for other industries during the coming months. Series of preliminary summary reports showing U.S. totals for each manufacturing industry and for each State are being issued. Final industry reports and final area reports will be published during the first half of 1970. Order forms showing these reports and their prices may be obtained from any U.S. Department of Commerce field office or from the Bureau of the Census, Washington, D.C., 20233.

The 1967 Census of Manufactures is the 28th census of manufacturing establishments in the United States. For 1967, it was conducted jointly with the censuses of mineral industries, retail trade, wholesale trade, and selected services under authority of Title 13 of the United States Code. Title 13 specifies that a census of manufactures be conducted every 5 years and, as recently amended, to cover years ending in "2" and "7." Title 13 also authorizes an annual sample survey of manufacturing establishments in interim years.





# Appendix

## EXPLANATION OF TERMS

*(For a more complete discussion of these terms and the method of compiling the Census of Manufactures, see the "Introduction" to the 1963 Census of Manufactures, Volume II.)*

**All Employees--** All full-time and part-time employees on the payrolls of operating manufacturing establishments for any part of the pay period ended nearest the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employee" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for mid-month payroll periods of March, May, August, and November.

**Payrolls--** This item includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

**Production and Related Worker Man-Hours--** This total relates to production worker man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

**Cost of Materials--** The term "cost of materials" refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed regardless of whether these items were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, components, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or the generation of electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

**Specific Materials Consumed--** In addition to the total cost of materials which every establishment was required to report, information was also collected on the consumption of major materials used in manufacturing. These materials inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information regarding the specific materials consumed is shown in table 4.

Establishments consuming less than a specified amount (usually \$5,000) were not requested to report consumption of the material separately. Also, the cost of materials for the small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

**Value of Shipments--** The amounts under value of shipments are the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by others was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value; i.e., include not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.



**Shipments of Individual Products--**In the 1967 census program, more detailed shipment information was collected on the output of approximately 10,000 individual products. These products are identified by a 7-digit code and are grouped into approximately 1,200 classes of products which in turn are primary to about 430 4-digit industries. Data at the 5-digit product class level have been collected each year as part of the annual survey of manufactures. Information at the 7-digit level is collected in the quinquennial census of manufactures program and, for many industries, in the Current Industrial Reports program of the Bureau.

Typically, both quantity and value of shipments information were collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. Insofar as additional other measures were collected for selected products, they are shown in table 3.

**Value Added by Manufacture--**This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

"Value added" avoids the duplication in the value of shipments figure which results from

the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**Expenditures for Plant and Equipment--**For establishments in operation and establishments under construction but not yet in operation, manufacturers were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments, and (b) new machinery and equipment used for replacement purposes and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude that portion of expenditures for new facilities and equipment leased from nonmanufacturing concerns, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expense are also omitted.

**End-of-Year Inventories--**Respondents were asked to report their inventories at approximate current costs if feasible; otherwise, at book values. Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of the inventories aggregated for all establishments in an industry is not precise. The figures on change in inventory between years are of considerably greater significance than the measurement of the level of inventories.

**U.S. DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
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